VERMILION RIVER
A Local Management Plan
June 1995

Ordinance 27, Section 22
August 15, 1995

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I. OVERVIEW

THE INITIATIVE

The "25 by 96" initiative proposed a six-year effort to prepare management plans and to cooperatively fund implementation of these river management plans for 25 rivers in northern and central Minnesota.

The end result of execution of the initiative would be the betterment and enhancement of some of the very best rivers that Minnesota possesses in its northern and central regions. Some of the significant features of this proposal were:

> Completion and adoption of local river conservation plans for management of 25 rivers in northern and central Minnesota by the end of fiscal year 1996;
>
> Development of public recreational sites and related facilities through state and local cost share funding in order to provide for the full public use and enjoyment of these rivers and their adjacent public lands;
>
> Providing for the restoration and interpretation of significant historic and cultural sites along these 25 rivers; and
>
> Improving habitat for wildlife and fisheries through the cooperative efforts of the responsible public agencies, citizen volunteers and the private sector on and along these 25 study rivers.

The "25 by 96" proposal is an interlocal initiative because the method for leading river conservation planning and management is with the cooperation of responsible state and federal agencies and the private sector. It is without precedent anywhere in the United States that such a comprehensive river conservation effort has been proposed for action by cooperating local government(s).

It builds on the successful local river management experience of such organizations as the Mississippi Headwaters Board, "Project River Bend" (Minnesota River), the North Shore Management Board and the Big Fork River Management Board. Moreover, the planning and management experience from these efforts have been judged to be of the highest quality. To wit, a recent National Park Service review of the Mississippi Headwaters Board program, now nearly 10 years into the implementation of the first-ever inter-local alternative plan for the upper 400 miles of the Mississippi River, found it to be among the best of an array of river management alternatives from around the United States.

The initiative is supported by a broad spectrum of natural resource user groups and recreation interests as well as by the local governments themselves who will be responsible for the implementation of the planning

effort. It envisions the execution of planning and management activities by an interdisciplinary team of resource professionals from both the public and private sectors; and the proposed initiative will be led by those who have considerable experience in preparing similar approaches elsewhere in Minnesota and in other states.

THE NEED

Federal River Activity:

The upper St. Croix was the first river in Minnesota to be included in the National Wild and Scenic River System. In fact, it was one of the "instant eight" rivers designated with the passage of the enabling legislation by the Congress in 1968. In 1972, the Lower St. Croix was added to the federal system.

The upper 466 miles of the Mississippi River, from its headwaters to Anoka, was also studied by the U.S. Department of Interior and proposed for inclusion in the federal wild and scenic rivers system. The federal designation proposal generated much controversy. In response, eight counties formed the Mississippi Headwaters Board, which prepared an interlocal river management plan which was accepted by the U.S. Department of Interior in 1980, as a responsible, effective alternative to federal management.

The Kettle River, in Pine and Carlton Counties, was also proposed and studied for federal wild and scenic river designation. At the time, the Kettle River in Pine County had recently been designated the first component of the state's wild and scenic river system. The state designation occurred through administrative action by the Minnesota Department of Natural Resources (MDNR) Commissioner, in the manner prescribed by state law. The MDNR opposed federal designation of the Kettle River, arguing it to be essentially unnecessary in light of the state's action. And the U.S. Department of Interior subsequently recommended it not be designated in the federal system by Congress because of the state's river management program.

Recently, interest rekindled in river protection under the federal Wild and Scenic Rivers Act. To wit, in 1987 a federal commission, the President's Commission on America's Outdoors (PCAO), recommended the protection of 2,000 rivers by the year 2000. Since then, the federal government and the Congress have aggressively promoted river conservation and protection as a result of the Commission's recommendations. In 1982, the National Park Service completed a national rivers inventory which is being used as the guiding document for a "reinvigoration" of the federal wild and scenic rivers program. The PCAO concluded that nationally over 1,500 additional rivers potentially qualified for federal wild and scenic river designation, although only 72 river segments totaling 7,365 miles are presently included. The PCAO report also made special note of the fact that only a few rivers in the midwest states have yet been included in the federal system.

For nearly 20 years since the creation of the National Wild and Scenic Rivers Act (P.L. 90-542), federal river designation typically occurred through a process whereby a river and its authorizing legislation were individually considered by Congress, although individual river designation(s) would subsequently be placed in an "omnibus" bill, for legislative efficiency.

This legislative approach has now changed and changed dramatically, whereby a list of many rivers within a state were considered for inclusion in a single legislative action.

In 1988, a bill was passed by the Congress designating 41 rivers in Oregon as components of the federal wild and scenic rivers system.

In February 1989, a similar approach was advanced, considering federal designation of some 56 rivers in the state of Washington. The proposal met with heated controversy in its earliest stages and was set aside. However, knowledgeable observers expect the initiative will be "repackaged" and reintroduced.

And in January 1990, an initiative to designate 20 rivers in Michigan was formally advanced. Bill introduction to include these rivers in the federal system is expected to be considered in the current session of Congress.

Most recently, federal wild and scenic river designation actions by Congress have accelerated. To wit, omnibus federal river designation bills have passed in Michigan and Arkansas; and 40 rivers in Arizona are currently being considered by Congress for national wild and scenic river designation.

In Minnesota, the first step toward federal wild and scenic river designation was taken in 1988 with the inclusion of seven rivers on the National Park Service candidate list in the forest management plans for the Chippewa and Superior National Forests. The National Park Service inventory includes a total of 48 Minnesota rivers, 37 of which are located in the northern half of the state.

State River Activity:

In Minnesota, the first systematic look at the recreational potential of the state's rivers was conducted in 1966 by a consultant to the Minnesota Department of Conservation. The consultant evaluated 24 rivers and recommended actions to be taken to develop the recreational potential of 13 of these study rivers.

The next year, the 1967 Legislature created the Canoe and Boating Route river legislation which authorized the Minnesota Department of Natural Resources (MDNR) to acquire and develop recreation sites along designated rivers. Presently, 18 rivers are designated "Canoe and Boating Route Rivers".

The first state legislative action to provide comprehensive protection for Minnesota's outstanding rivers came in 1973 with the passage of the "Minnesota Wild & Scenic Rivers Act." State standards and rules

for wild and scenic river designation, planning and management were promulgated in 1974. In 1975, the Kettle River, in Pine County, was the first river designated under this legislation.

When initially conceived and created, it was anticipated that about 2,000 miles of the state's most outstanding river segments would be designated under this state legislation.

By 1979, a total of six rivers were designated as components of the state wild and scenic rivers system (The lower St. Croix River was designated by separate legislative action.).

Controversy existed from the outset of the effort to implement the state's wild and scenic river legislation. But with it also came new approaches, ideas and inter-governmental cooperation.

For example, in 1980, the Mississippi Headwaters Board, an organization of eight counties, developed an interlocal protection plan for the upper 400 miles of the Mississippi, as an alternative to federal control.

In 1982, "Project River Bend", an intercounty organization developed its own locally-led strategy for management of a portion of the Minnesota River, as an alternative to state river wild and scenic designation.

In 1987, local governments cooperating with the MDNR and other state agencies prepared a plan for management of Minnesota's "North Shore".

And in 1989, with both cooperation and cost-sharing assistance from the MDNR, Itasca and Koochiching counties formed a joint powers board to prepare and implement a management plan for the Big Fork River.

Recognizing the need for a reassessment of approaches and the need for a credible survey of Minnesota's outstanding river resources, the MDNR completed a "Statewide Outstanding Rivers Inventory" in 1982. Funded by the Legislative Commission on Minnesota Resources (LCMR), the MDNR studied 157 rivers and streams. The final report grouped rivers into "first", "second" and "third priority" categories and concluded that a total of 103 rivers merited special protection or monitoring. Of this total, 10 were recommended by the MDNR for "Immediate study".

However, from 1979 to 1990, not a single river has been designated nor proposed for designation in the state wild and scenic rivers system.

RIVER SELECTION PROCESS

In November 1989, the Northern Resources Alliance of Minnesota (NRAM) retained Foresight Consulting Group to assist in the preparation of a comprehensive river initiative for northern and central Minnesota. The consultant firm designed the proposed approach consistent with the initial direction set by NRAM, and presented it to the NRAM Board for approval.

In late November, the NRAM Board adopted the proposed approach and selected an interdisciplinary study team of resource management professionals, local government officials, recreationists and user interests to review river candidates for inclusion under the initiative. Part of this review process included consultant and study team evaluation of rivers on the National Park Service and U.S. Forest Service National Wild and Scenic River inventories, as well as the "Statewide Outstanding Rivers Inventory" prepared by the Minnesota Department of Natural Resources.

In addition to the approach which was adopted by the board, the study team also adopted evaluation criteria for the review of potential rivers for inclusion under the local initiative proposed by NRAM.

Numerous rivers, including those not listed on either the state or federal inventories, were reviewed as possible candidates for inclusion under this initiative. The study committee concluded its deliberations in January 1990, with a recommendation to the NRAM Board that 25 rivers in northern and central Minnesota be included in this initiative. The 25 study rivers, located in 24 counties, were formally included in this initiative In January 1990.

RIVER SELECTION CRITERIA

Although the list of "25 by 96" study rivers is eclectic, it was not arbitrary. Specific criteria were used for evaluating the rivers to be included under this proposal.

The selection (preference) criteria for inclusion of rivers under this initiative were:

Land Ownership:

Preference for rivers which have a preponderance of county or private riparian lands.

Preference for rivers with little federal ownership.

Preference for river corridors currently used for a variety of purposes, with "blocks" of state or county lands.

Diversity:

Preference for rivers currently experiencing a wide array of water and land uses.

Preference for rivers with particular, statewide significance (e.g. fishing, hunting, white water).

Preference for rivers with corridors having unique historic, cultural or archaeological significance.

Management:

Preference for rivers which can be easily managed through locally-led action.

Preference for rivers which can be economically managed.

Preference for rivers from which maximum public benefits can be derived from such an effort.

Governmental Action:

Preference for rivers where affected local governments have the desire, resolve and resources to lead such efforts.

Preference for rivers as an alternative to possible federal Wild and Scenic River designation.

Preference for rivers which are threatened by federal or state water development projects (dams, diversions, etc.).

THE RIVERS

The list of 25 rivers chosen for planning and management through interlocal cooperation is eclectic. That is to say that they were chosen from among the very best which the northern and central Minnesota regions have to offer.

Some rivers are already well-used and enjoyed by the public. Others are largely undiscovered. All are currently unprotected by any special measures appropriate and necessary to protect the essential qualities which cause them to be outstanding public resources.

Individually, the rivers chosen are a significant resource, on a regional, state or national level. Indeed, most of the rivers (21) chosen for implementation of special interlocal conservation management are those which were selected by the National Park Service to be placed on its national rivers inventory as potential candidates for inclusion in the federal wild and scenic river system.

The rivers proposed to be planned and managed under the “25 by 96" initiative are listed (alphabetically) here:

Rivers:

1. Bear
2. Black
3. Blackhoof
4. Clearwater
5. Cloquet*
6. Little Fork
7. Lower Tamarack
8. Manitou
9. Middle
10. Moose
11. Pigeon
12. Pine
13. Prairie
14. Rainy*
15. Rapid*
16. Red Lake
17. Roseau
18. St. Louis*
19. Sand Creek
20. Sand Hill
21. Snake
22. Straight
23. Vermilion
24. Wild Rice
25. Willow

*Management plans have been completed on these rivers.

PROGRAM ADMINISTRATION

In the case of a river or river segment lying entirely within the geographic jurisdiction of a single county, that county will be responsible for leading plan implementation activities.

However, in the cases where a river flows through two or more counties, it is anticipated that plan implementation will be facilitated through a joint county river management entity, composed of county commissioners, which would be organized under the authority of The Joint Exercise of Powers Act of Minnesota (MSA 471.59).

With regard to recreation development and resource management activities to be conducted under this initiative, the execution of these activities will be by the responsible counties.

This organizational structure has been a proven, effective way for local governments to address common concerns of “extra-jurisdictional” impact. Since the Minnesota Legislature authorized such interlocal cooperation by passage of the statute in 1943, literally hundreds of such interlocal pacts have been created and have successfully achieved the purposes for which they were organized. Indeed, it was under this authority that the nationally-lauded Mississippi Headwaters Board was first organized to expedite an array of river planning and conservation activities.

Since this proposed initiative can only succeed if the affected county boards of commissioners agree to lead such efforts, the specific organizational and interlocal cooperation strategies may vary somewhat.

II. ORGANIZATIONAL STRUCTURE

ORGANIZATIONAL HISTORY

The Vermilion River Management Board (VRMB) was legally constituted under the Minnesota Inerlocal Cooperation Act of December 4, 1993 when the county of St. Louis and the township of Portage signed a joint powers agreement to undertake and implement a local river management plan.

As originally constituted, the VRMB was composed of three voting members, two county commissioners from the County Board of Commissioners and the Portage Township Board. The VRMB members are appointed by the respective county board or council.

A copy of the executed VRMB joint agreement which proscribes membership, duties, and operations is provided in the Appendix.

The VRMB held its first meeting on July 6, 1993. At that time the VRMB agreed to proceed with the study effort and retained Foresight Consulting Group to facilitate the study process. The Board also designated St. Louis County as the fiduciary agent for the project. And the VRMB agreed to seek full citizen participation through the creation of a citizens steering committee.

A VRMB citizen steering committee was organized to bring broad-based, diverse interests into leadership of the river planning process itself. Citizen membership was publicly solicited, applications submitted and screened by the Board, for appointment. Representation from an array of regional, state and federal entities was also sought for the VRMB steering committee, in an ex-officio capacity. Toward this end, public agency representation was solicited by letter of invitation at the start of the study process.

THE PEOPLE INVOLVED

VERMILION RIVER MANAGEMENT BOARD STEERING COMMITTEE MEMBERS:

Steering Committee:	Group Represented:
Phil Anshus	At Large
Wayne Bella	Resident
James Beste	Leaseholder
Anthony Chos	Forestry
Richard Dahl	Local Resident-Industry
Ejay Dawson	Local Resident
Earl Fisher	Non Resident-Property Owner

Jerome Flashberger	Leaseholder
Randy Grahn	Forestry

Steering Committee cont.	Group Represente cont.
Victor L. Gunderson	Local Resident-Industry
Kevin Hoffman	Realtor
Gary Jadwin	Resident-Recreational
Ronald Koski	Environmental
Christopher Lange	Resident
Ted Luoma	Leaseholder
Jim Majeski	Resident
Michael Mehle	Non Resident-Realtor
Darwin Nelson	Resorts
David Parker	Recreational
Irma Parzyck	Resident
Jeffery Sanborn	Local Recreational-Industry
Russell Sikkila	Non Resident-Property Owner
Kathy Weiand	Resident
Vicki Woolverton*	Resident

(*served April, 94 - Jan., 95, joined Planning Commission in Jan., 95)

Alternates:

Victor H. Gunderson	
Walter Majewski	(historian)
Frank Parzyck	(local history research)

VERMILION RIVER MANAGEMENT BOARD MEMBERS:

Commissioner Mike Forsman, Chair
Dan Hoffman, Vice Chair, Town of Portage
Commissioner Liz Prebich
Commissioner Steve Raukar, Alternate
Bill Rutchusky, Town of Portage, Alternate

Ex Officio Members:	Representing:
Heidi Bauman	MPCA
Carol Booth	U.S. Forest Service
Denny Bone	St. Louis Cty. Land Dept.
Howard Christman	DNR Waters

Geraldine Floyd	Planning Commission
Dave Friedl	DNR Fisheries
Neil Gardner	Planning Commission
Rich Hyrkas	Environmental Health Dept.
Mark Johnson	Planning/Zoning

Ex Officio Mem cont.	Representing cont.
Arlo Knoll	DNR Minerals
Jeff Lightfoot	DNR Area Wildlife
Mark Lindhorst	N. St. Louis Cty. Soil & Conservation District
Amy Loisell	DNR Waters
Jim Plummer (alternate)	Planning/Zoning
Ron Potter	DNR Trails and Waterways
Ramon Tarchinski	DNR Area Forester
Dave Tucci	U.S. Forest Service

Vermilion River Board Members who started the Planning Process and signed Joint Powers Agreements:
(Served July 1993 - December 1994)

Herb Lamppa

Consulting Services:

Mike Priesnitz	Foresight Consulting Group
Doris Hanson	Foresight Consulting Group
Catherine Schabel	Foresight Consulting Group
Greg Smucker	Foresight Consulting Group

Funding for this project was approved by the Minnesota Legislature (ML 1991, Chapter 254, Art. 1, Sec. 14, Subd. 3c) as recommended by the Legislative Commission on Minnesota Resources from the Minnesota Future Resources Fund.

All meetings of the VRMB and the Steering Committee have been advertised and open to the public.

The Steering Committee was charged by the VRMB with the responsibility for preparation of the draft plan for local management of the Vermilion River. And upon completion of a series of public informational meetings which will be held to get public input on the draft plan, the Steering Committee will also have the responsibility to make revisions to the draft river plan, as are necessary to be responsive to this public input.

The Steering Committee will then forward the final river plan to the VRMB and the Board of Commissioners of St. Louis County for their consideration and adoption.

Because of the leadership role the VRMB has in river plan preparation, the Steering Committee felt it was important to determine at the outset of the planning process the attitudes, opinions and priorities of the committee members and the VRMB. The results of a survey of steering committee members are provided here:

SURVEY OVERVIEW

At the first meeting of the Vermilion River Management Board, members were asked to fill out a survey on critical issues. The purpose of this survey was to ascertain in an unbiased fashion which issues were most important to members of the Board.

The survey consisted of three parts. In the first part, respondents were asked to rate the importance of 16 issues on a four point scale. In the second part, respondents were asked on a five point scale if there was too little, too much, or just enough of ten different land use practices. In the third part, they were asked how much confidence they had in 11 different government and private sector groups to manage the area's resources wisely. At the end of each section those answering could elaborate on their thoughts in an open-ended manner.

In assessing the results of all three sections, Foresight Consulting Group measured the direction of opinion and the degree of agreement or disagreement on each question. The direction of opinion was measured using the median response. (The median is the "halfway point"-half the Board gave this response or higher, while half gave this response or lower.) The degree of consensus was measured through the average deviation from the mean of the responses, a standard statistical measure of variability. Thirty-six Board members completed the survey.

IMPORTANT ISSUES

Six of the sixteen issued in question were deemed "very important" by the Board: recreation, river water quality, forest management, ground water, fishing and solid waste. Consensus on all but solid waste was high; a number of Board members felt that solid waste should be given a lower priority. All but one of the remaining issues were considered on the average "important". There was, however, considerable disagreement on the importance of these issues, with some believing them "very important" and other "unimportant". The degree of consensus was particularly weak on trespassing and endangered species, while wetlands, tourism, zoning, roads, river access and the mix of government authority enjoyed somewhat greater, though by no means unanimous, agreement.

A majority of the Board considered industrial development to be an unimportant issue.

When asked for the most important issue facing the Vermilion River area, 12 Board members replied protecting opportunities for multiple uses of the area. Many members were concerned about the possibility of wilderness designation or other decisions which would limit the uses to which the river could be put. Water quality was the next most often mentioned issued, cited by seven members. Excessive logging was mentioned by three, while trespassing, zoning, sustaining local commercial interests, sustainable resource management, mix of government authority, recreation and control of residential development received one mention each.

LAND USE

On the average, the Board believes that present land use practices are appropriate. All ten uses listed in the survey were deemed "just right" by a majority of the Board.

Only three of these items, however (recreation, housing and roads), had a high degree of consensus. There was some disagreement about the levels of tourism, public access and forestry, and considerable disagreement over industrial and commercial use, wilderness, snowmobile trails and public land.

The Board was asked what one land use practice most needs to be changed. Logging was most frequently cited, with seven members stating that the current level of logging or the proximity of logging to the river was threatening the resource. Five members volunteered that no practices need to be changed, while four cited a need for more public access. Industrial use, too much public land, too much snowmobiling, "BWCA tactics", practices affecting water quality, potential over development and "canoe-only rivers" received one mention each.

AREA INSTITUTIONS

A variety of institutions, both public and private, play a role in the management of resources in the Vermilion River region. Members of the Board were asked to indicate the degree to which they were confident that several of these institutions would manage these resources wisely. Confidence was measured on a four point scale, where a score of 1 indicated no confidence and 4 a great deal of confidence.

None of the 11 institutions listed averaged no confidence or a great deal of confidence; all are somewhere in between. The National Park Service and the real estate industry received little confidence from Board members, while St. Louis County, the State of Minnesota, the tourism industry, the U.S. Forest Service, the logging industry, canoeists, private landowners, fishermen and hunters enjoy, on the average, some confidence. There is, however, considerable disagreement over confidence in the logging industry and canoeists, with a significant minority having less confidence in these two groups than did the Board as a whole.

The Federal government was most frequently cited when Board members were asked to list the institution least likely to use the river wisely. The Federal government is perceived as too distant and not attuned to

or interested in local area interests and was cited by 14 Board members. Well behind were industry (3 votes) and tourism (2 votes). Both were cited as being too concerned with short-term profits. Regulators, environmental groups, the forest industry, the real estate industry, those resisting compromise and consensus and "anyone south of Cook, Minnesota" received one mention each.

CONCLUSION

Entering the process, the Board appeared to favor solutions that:

Protect the quality of the river;
Retain multiple use, particularly for recreation; and
Are conceived and implemented locally using local institutions.

In addition, there was some skepticism over the need for additional development and future plans of the logging industry.

In general, the Board lacks polarized extreme viewpoints. While there is disagreement over logging practices, industrial development and the amount of publicly owned land, the relative moderation of most of the Board showed the potential for a productive planning process.

III. THE RESOURCE

PREHISTORY

Approximately 500,000 years ago, the area surrounding the Vermilion River was covered by massive glaciers. When they began to recede they left large depressions in the earth which were then filled with their meltwater. Glacial Lake Agassiz was one of these formations, the SE tip of which touched this area.

The first Native Americans to inhabit Minnesota, the Paleo-Indians, arrived some time before 5,000 B.C. They followed the retreat of Glacial Lake Agassiz and camped along its banks. They hunted giant bison, caribou and other animals for sustenance. They relied on smaller animals, fish and plants as an additional food source. Because they lived in very small, highly mobile groups, evidence of these ancient people is scarce.

From 5,000 B.C. to 200 B.C. the Archaic Culture evolved from the Paleo-Indians. Having to adjust to the changing climate, vegetation, and animal life in the area, the Archaic people developed new tools based on similar tools used by the Paleo people. Smaller spear points, knives and scrapers were used for the hunting and processing of smaller animals. Fishing spears, nets and traps were developed to facilitate their dependence on fish as a food source. Woodworking tools of stone and copper have bene found, indicating the use of dugout canoes. As with the Paleo-Indians, archeological evidence of the Archaic Culture is scarce even through the population density of these people was much greater.

From 1,000 B.C. to 500 B.C., the Vermilion River was inhabited by the Mound Builders, a term that was used to describe a culture of people that built thousands of mounds in the eastern half of the United States. We know now that there were many cultures, at different times and for different purposes, who constructed these mounds. From 1,000 B.C. to A.D. 700 the mounds were used for burial purposes.

HISTORY

In 1500, the Vermilion River was “the water highway to the north” for the Dakota Indians, a nomadic tribe who occupied this area of Minnesota during this time.

In 1670 the Hudson Bay Fur Company was organized followed by the exploration of the water route from Lake Superior to Canada by Jacques de Noyan in 1671. This helped open the Vermilion River to serve as one of the three principal fur trade routes developed by the French in the 1700's. Rene Bourassa built two houses with a surrounding palisade at the rivers junction at Crane Lake in 1736. In 1760 the common route for the English traders of the Hudson Bay Company was to canoe up the St. Louis River and down the Vermilion River, establishing trading posts along the way. Near the Bourassa site, a trading post was built in 1811 by Dr. John McLaughlin, a clerk-surgeon for the North West Company. The Hudson Bay Company acquired this post in 1821 when it absorbed the North West Company. A rival post was built at Crane Lake by an independent American trader, George Johnston, who attempted to take over the

Hudson Bay post in 1822 but was unsuccessful. The Hudson Bay Company continued its trade along the Vermilion River into the 1830's.

A surveyor named David Dale Owens led a geological expedition on one of the first scientific viewings of the Vermilion River in 1848, which was succeeded shortly after by Colonel Whittlesley.

The Vermilion River experienced heavy travel during the 1865 Gold Rush on Lake Vermilion and once again in 1893-94 with prospectors en route to and from the Rainy Lake gold fields. During this time, as many as forty people a day passed through Tower, MN, either down the Vermilion River or over the Crane Lake Portage. Since there was no railroad at the Vermilion River area during this period, all commerce was by stagecoach, steamer or sledge.

At this time, government surveyors, including George Stuntz, F. Griffin and J. Westby came to the area. In 1893 these men told of encountering Indians, Sugar camps, homesteads and old forest roads. They also reported 25 settlers.

There were stopping places along the Vermilion River for rest and supplies. The first such place was located at Two-Mile Creek, about two miles up from the Vermilion Dam. The next was located at Crane Lake. There were several places at the end of the Portage, at Crane Lake. These stopping places, on a converted lumberjack camp, sold food camping supplies, ammunition, horse feed and other commodities, including bootleg whiskey, to the travelers. The stopping place at Two-Mile Creek eventually turned into Vermilion Lodge, which was probably the first resort on Vermilion Lake.

The first bridge to span the Vermilion River was built at Buyck in 1891. It was built by the settlers using local timber. A second bridge was built in 1921 costing $21,200. The present bridge, built in 1962, is said to have the longest span in St. Louis County at 212 feet. Its cost of $125,000 was provided for by the state and federal government.

The Vermilion Dam was originally built to service the logging operations, which had soon turned into a booming industry after its start in 1870. Vermilion Lake was too shallow for large tugboats to tow the log rafts, so sand bags were piled into the outlet to raise the water level. The dam washed out and some years later, local resorters and businesses collected $1,243 to build a permanent dam. This fund bought the water rights on the river from the logging companies and turned the rights over to the State of Minnesota. Due to the costs, the Izaak Walton League and Chamber of Commerce failed in their attempts to have a dam built, but a spillway was constructed by the Conservation Department to help keep the water flow at a constant level. In 1930, Congress passed the Shipstead-Nolan Act prohibiting alternation of existing water levels and logging along natural shorelines of lakes and rivers.

At the present time, the Vermilion River is still a haven for the camper/hunter/angler. Although its towns are modernized, and the old stagecoach road is now St. Louis County Road #24, the original portage route remains open to voyagers. The people who live along the river, descendants of the original settlers,

trappers and lumberjacks, still work together to achieve their goals of maintaining and enjoying the mighty Vermilion River.

Vermilion Dam

The source of this brief history of the Vermilion Dam is the lake file #69-0378 at the Minnesota Department of Natural Resources Division of Waters, St. Paul office:
The original, loose rock dam at the outlet was constructed by the Howe Lumber Company, circa 1892, to raise water levels to accommodate logging operations. The center section of the dam was blasted in 1913 to alleviate high water.

Thereafter, there was considerable lobbying by the county and locals to rebuild the dam. This lobbying effort intensified during "WPA" days. Considerable difficulty was encountered when attempting to secure easements for a new dam at the existing site. Once the easements were secured, the question became one of who would fund the project. In 1953, MDNR recommended repairing the existing dam and restoring the center section. After a public hearing in 1953, which culminated in the state taking control of the apparently abandoned structure, the county and the MDNR Fish and Wildlife Division split the repair costs. The repair was completed in 1955.

The dam is state owned. It is grouted rock, a total of 175 feet long. The low point is the 30 ft. long center section at 1356.6 ft. above mean sea level. The next 25 ft. on either side, the dam slopes up to an elevation of 1357.0 ft. The next 47.5 ft. on either side, the dam is level at 1357.0 ft.

The dam is inspected every 5 or more years by MDNR Division of Waters dam safety inspectors; they will inspect it during the 1995 season.

VERMILION RIVER CORRIDOR GEOLOGY & MINERAL POTENTIAL

Bedrock Geology

The river flows through the geological formation known as the Vermilion Granite Complex, which is 2,650 million years old. It is part of the Quetico Subprovince of the Superior Province granite-greenstone terrains covering major portions of the Canadian Shield. The rocks found in the study area are mostly granite-rich migmatites; a banded alternation of light-colored granite and oriented darker colored layers of gneiss, schist and locally amphibolite. All kinds of gradations can be observed of the darker-colored layered rocks into lighter colored granite-gneiss and ultimately into pink granites. The upper about 1.5 to 2 mile course of the river near Vermilion Dam runs through biotite schist-rich migmatites, which have been interpreted as metamorphosed sediments. The rocks of the Vermilion Granite Complex are mostly east-west to east-northeast west-southwest trending. In the lower 6 to 7 miles before the river empties into Crane Lake, fold

structures are evident on the geology maps, accentuated by the dominance of schist-rich migmatite. These local fold structures and the prevalence of north-northwest trending faults strongly influence the course of the river.

Glacial Geology

Quaternary sediments were formed about 12,000 years ago during the last glacial recession. The Vermilion River lies within Rainy lobe ground moraine. Loess, (a fine-grained calcareous deposit) occurs sporadically in this region as a thin layer within the soil zone, up to 1 foot thick. The drift is composed of bouldery, stoney, sandy till with a carbonate content of only a few percent. The drift is relatively shallow here, so the resulting landforms are influenced by the bedrock. The stones, cobbles, and boulders are almost exclusively crystalline rocks and many of these rock types are from local bedrock.

Mineral Potential

Base and precious metals and radioactive minerals:

Granitic migmatites are traditionally considered by economic geologists to represent geologic terrains of low mineral potential for base and precious metals.

Gold

In the 1930's, however, the area near the lower course of the river experienced a flurry of exploration and development activities related to reported gold discoveries at the Vermilion River Mines (T76N R18W S34-36; more specific S36 S1/2 of the SW 1/4) and the Hanson Brothers Gold prospect (T66N R17W S33). At both prospects sulfide mineralization (pyrite (fools gold) and pyrrhotite are present in contact zones of granite and calcsilicate rocks (metamorphosed carbonate-bearing rocks). Very high gold values were reported by the operators (Vermilion up to 13.5 ounce/ton and Hanson up to 0.18 ounce/ton) but could not be confirmed by later assays of state employees. Shafts sunk at both prospects have been reclaimed.

Radioactive minerals

Granite rocks, especially when associated with pegmatites (very coarse grained varieties of granite), have attracted prospectors for radioactive minerals in their search for uranium and thorium. The vast stretches of granitic terrains of northeastern Minnesota experienced exploration activity for these minerals during the 1950's and 60's. Assessment files of the Division of Minerals show records of “Wildcat-Uranium and Source Material Permits” at T66N R17W S3 and T66N R18W and S4.

Industrial Minerals:

Dimension Stone

Inventories conducted by the Division of Minerals outside a self-imposed 1/4 mile Vermilion River buffer zone since 1989 have identified several small isolated areas with excellent quarry potential which are shown on the map. These are:

St. Louis County Site 190

This is a grayish pink granite with excellent potential for quarry development in terms of rock properties and accessibility. This site has been requested for lease by a Canadian quarry company. The site has a mixed ownership; it is located at the common corner of 4 forties. The state mineral ownership is one forty. All the surface is owned by the federal government as is the remaining mineral ownership.

St. Louis County Site 196

Many of the determining characteristics for development are the same as the former prospect though not quite as good. The ownership is mixed; the surface is federal and the mineral rights are owned by the state.

St. Louis County Site 95

This is a gray to pink granite. Cold Spring Granite has leased a forty from the Superior National Forest. Further work by the company has indicated inconsistency of color which makes it less attractive; the area is still under lease, however. The state owns the forty to the west.

Sand & Gravel

There are no thick or extensive glaciofluvial deposits in the Vermilion River valley. However, there are local sand and gravel deposits near the Vermilion River shown on 7.5 minute maps, some of which may be quite large. These deposits occur primarily as Rainy lobe ice-contact stratified deposits in landforms such as kames and eskers. The 7.5 minute topographic map for this area shows a large kame in the NW 1/4 S2, T63N R17W (large hill with the Vermilion Dam lookout tower on top) that has potential for a large sand and gravel deposit. There is high potential for crushed stone aggregate in this area due to the presence of durable crystalline rock at the surface in many areas. The limiting factors for the development of aggregate deposits in the Vermilion River valley will be: 1) the limited demand due to the remote nature of this area; 2) the shoreland rules (6120.2500 to 6120.3900) restrict aggregate mining within shoreland zones, generally 300 feet from a stream and 1000 feet from the ordinary high water level of a lake, pond or flowage; and 3) other local sources of aggregate are readily available.

MINING

Future Mining:

The mining of any metallic minerals or peat in the Vermilion River planning area would require numerous permits from the Department, Minnesota Pollution Control Agency, as well as oversight by the U.S. Corp of Engineers and U.S. Environmental Protection Agency. In addition, environmental review in the form of an EAW or EIS would be required.

Peat

In general, under DNR regulations, peat mining would not be allowed within 300 feet of the Vermilion River. However, all of the river, except those segments in sections 1 and 2 of T63N-R17W, lies within an area defined by the Federal Shipstead-Newton-Nolan Act. The Department's rules for peat mining do not allow mining to occur within 400 feet of any river within the Shipstead-Newton-Nolan area.

Iron

As with peat mining, the Department's regulations for iron taconite mining do not allow mining within 300 feet of the river. However, as discussed above, the majority of the river is in the Shipstead-Newton-Nolan Act, and iron mining would not be allowed to occur within 400 feet of the river.

Nonferrous Metallic Mineral Mining

Nonferrous metallic mineral mining may only proceed according to restricted criteria and conditions approved by the DNR Commissioner if it is within Minnesota's shoreland as identified by MS section 103F.205 Subd. 4. Specifically, the nonferrous mining and reclamation regulations allow mining in these shoreland areas only if there is no prudent and feasible alternative and if the Commissioner determines there will be no adverse effects on the natural resources, or provisions acceptable to the commissioner are proposed to either mitigate the adverse effects, or replace, reroute, or in some other manner reclaim the affected natural resources. In St. Louis County, the above referenced shorelands would extend 300 feet on either side of the Vermilion River.

It should be noted that in the case of the Upper Mississippi River, the Department's non-ferrous reclamation rules state that surface disturbance by mining is prohibited within shoreland areas identified by the Upper Mississippi River Management Plan prepared by the Upper Mississippi River Management Board. The regulations do not address the Vermilion River in a similar fashion, as a river management plan was not in existence at the time of rule drafting and promulgation. However, as the Vermilion River Board is undergoing a planning activity similar to that undertaken by the Mississippi Headwaters Board, affording similar protection to the Vermilion River is reasonable and would likely be included should there be future amendments to the rules. Underground mining adjacent to these river, or others, does not represent a threat to their integrity and should be allowed, while surface disturbance by mining may appropriately be excluded from the 500 foot setback corridor on each side of the river.

Mineral Exploration:

Geochemical and geophysical surveys are relatively unobtrusive activities that may include laying out of survey lines and taking of water samples and/or geophysical measurements such as magnetic measurements or rock samples. Exploratory boring requires moving a drill onto a previously identified drill site, drilling the hole, and removal of the drilling equipment. A temporary road, not unlike a logging road, may or may not need to be constructed. Exploratory boring is regulated by the Department of Health and the DNR and may require a conditional land use permit from the counties. These permits have often required the complete cleanup and reclamation of the drill site and any access roads upon termination of drilling. Exploratory boring is a more intrusive activity than geochemical and geophysical sampling, but it has been the Department's experience that it can be done in an environmentally sound manner with cleanup and reclamation of the site. It is the Department's recommendation that the exploration activities identified above should be allowed in the setback area as a conditional land use. It is necessary to secure knowledge of the extent of a potential deposit for mineral evaluation purposes, and a 1000 foot interval (500 feet on either side of the river) is too big of an interval for this to occur.

SOILS

St. Louis County is in the process of remapping and reclassifying the soils found within the County. At this time, there is no current soil data available from the County. Soil data used in this plan is taken from the U.S. Forest Service Wild and Scenic River Evaluation Report which states:

Soils and Minerals:

There are a variety of soil types along the Vermilion River corridor. The upper stretches of the river, above Buyck, contain moderately well to somewhat poorly drained soils. They are fine textured with a high level of natural fertility and an organic cap in places. Cobbles and boulders are present at and below the surface. There are islands of bedrock and also well drained sands and gravels.

North of Buyck the river narrows and the shoreline becomes more poorly drained. Standing water and lowland vegetation are the rule rather than the exception. The terrain becomes much flatter although there are occasional rises between the wetlands with well drained soils. An organic layer is quite deep, up to several feet, and the rocks and cobbles have almost disappeared in this stretch excluding an occasional rocky outbank.

From Vermillion Falls to Crane Lake the shoreline is mostly upland with poorly drained soils only in scattered potholes. The soils are mostly gravelly eskers and shallow soils on bedrock. Here the riverbed changes from silty and organic to rocky and gravelly. The fertility is somewhat lower here due to shallow, droughty soils. Gravel is the only economic mineral presently being utilized along the river. Gold was mined at one time in the lower stretches of the river.

WATERSHED/GROUND WATER

The Vermilion River is part of the Rainy Lake Watershed. The watershed is heavily forested, containing many lakes and has a complex drainage network that is controlled partly by the bedrock structure.

Glacial drift is the most favorable source of ground water. In most areas however, drift is less than 50 feet thick and discontinuous, thereby limiting its reliability as a source of ground water. Crystalline bedrock, the only alternate source of ground water, is relatively unproductive. Little or no water is found at depths exceeding 300 to 500 ft beneath the top of the bedrock.

Changes in the hydrologic system are seasonal. In winter when water is stored on the surface as ice and snow, ground water levels decline. Stream flow diminished and consists entirely of water released to storage in lakes and the ground water system. In the spring when the snow melts and precipitation increases, ground water levels rise and stream flow increases. Although changes take place in the amount of water stored in surface water bodies, the ground water system and the unsaturated zone, positive and negative changes tend to equalize over a long time period and the average annual change is assumed to be zero.

About 65% of all water loss is by evapotranspiration. In summer evaportranspiration is greatest and, except when rainfall is excessive, water levels decline and stream flow decreases. The amount of water withdrawn from man's use is about 1% of the total of the water that annually moves through the hydrologic system of the watershed. Regional ground water movement is generally northward, approximately perpendicular to topographic contours. Drainage is northward to a chain of border lakes along the United States-Canada boundary. Crystalline rocks of the Canadian shield are at or near the surface in much of the watershed. Deposits from glacial Lake Agassiz occur in the northwestern part of the watershed.

Most ground water in the watershed is of the calcium bicarbonate type, commonly hard, and in places contains excessive amounts of iron and manganese. Water in bedrock is commonly more mineralized, but contains less iron and manganese than water in drift.

Surface waters are of generally excellent quality and are considered soft. Surface water is used by most communities, some seasonal dwellers and most recreational users. Surface water in the watershed is also used to generate electricity at dams on the Kawishiwi River near Winton and at the outlet of Rainy Lake. Stream flow in much of the watershed is sustained by water released from lakes.

A gauging station is located at Vermilion Falls Bridge, Forest Road 491. A river gauge is located at the bridge at Buyck.

Data for the Vermilion River is as follows:

Drainage area - 483 sq. miles

Year of record (water years) - 1912-17, 1929-72
Maximum discharge (May 23, 1950) - 2710 ft. 3f/s
Minimum discharge - 0
(result of concrete dam built at outlet in 1955)
Average discharge (50 years) - 317 ft 3f/s
Runoff, average annual - 8.91 in.
7-day minimum discharge,
10 year recurrence interval - 16 ft. 3f/s

Flooding is seldom a problem in much of the watershed owing to the many lakes and swamps that store overland runoff and then release it slowly over a considerable period of time.

Forest products are the primary economic base, but the area is also noted for its recreational opportunities.

FISHERIES AND WILDLIFE

Fish Resources of the Vermilion River:

The Minnesota DNR Section of Fisheries is the regulatory agency responsible for managing fish resources in the State. The primary goal of the DNR Section of Fisheries for the Vermilion River is to protect fish habitat to maintain self sustaining fish populations, and to protect those populations from over-harvest. These actions should provide sustainable fishing opportunities and recreation.

The Vermilion has a diverse fish community. An all-inclusive species list has not been developed for the Vermilion River. However, Table 1 lists 10 families and 26 species of fish collected during the 1973 and 1994 surveys. More intensive sampling that targeted small fish would likely produce a much larger list of species.

Walleye, northern pike, small mouth bass and black crappie are the most common fish species sought by anglers. Fishing opportunities for these species can be found throughout much of the river. Fish populations are self sustaining and mostly resident. No commercial fisheries exist on the Vermilion. Fishing recreation can and should continue indefinitely on the river if suitable watershed and river habitat and water quality are maintained, and if fish harvest does not exceed sustainable levels.

River Plan and the Fish Resource:

Maintaining healthy fish populations and resulting fishing recreation in rivers is largely a matter of maintaining suitable fish habitat and good water quality. This river plan can only be effective in maintaining fishing recreation by controlling uses of the river corridor that degrade fish habitat and water quality.

Quality fish habitat is essential for healthy fish populations in all bodies of water, including the Vermilion River. Among the essential habitats that fish require are: a reliable source of clean water that is free of excessive silt and pollution, suitable spawning habitat, areas of cover (including wintering areas) and an adequate forage base. Essential habitat in rivers for various species includes rapids-riffles, pools, spring flooded grasses and large trees that have fallen into the river. Natural vegetative growth along the river and in the watershed provides one of the best protections for fish habitat in the river. The roots of these plants hold the soil, stabilize the banks and the plants slow and absorb runoff and pollution.

Human activities and development in the watershed can and sometimes do have a dramatic negative effect on essential habitat in rivers. Development projects along the river corridor and in the watershed must not degrade fish habitat if the fish community is to remain healthy. Consideration must be given to the cumulative impacts of all development, not just each individual project.

Demand for water appropriations continues to increase across the country, including Minnesota and demand is expected to grow in the future. Establishing flow protection before demands occur is the best way to assure adequate protection for water resources.

In river systems, the amount of water present over the year (the flow regime) is critical to the fish populations present. Water flow, water quality, temperature and energy inputs to a stream in large part determine the amount and types of fish present. Competition, predation and distribution are also important factors. However, physical factors, like water flow, are generally more predictable; less variable and more easily measured than chemical or biological ones. Physical habitat for river fish is largely flow dependent and can be defined by the velocity, depth of the water and by the type of bottom and cover present.

Fish require different types of habitat at different stages in their life and different fish require different habitats to live. The community-based Instream Flow Incremental Methodology (IFIM) is a technique that provides information on the habitat present at different river flows and can be used to develop flow recommendations to protect fish communities. Stream-flow protection is necessary to insure our quality of life and allow sustainable fisheries and recreational uses of local resources.

1994 Stream Survey Information Sheet:

One or two fisheries biologists spent almost 3 weeks on the Vermilion river this summer. Six days were spent doing reconnaissance, 4 days on electrofishing, 2 days on trapnetting and 2 days of angling.

Reconnaissance was completed on most of the river to identify similar reaches, identify nursery and probable spawning areas, identify vegetation types and locations (riparian, upland and aquatic), identify watershed condition (pollution and erosion), identify fish habitat (cover, substrates, riffle-pool, fish barriers), collect water quality samples, collect fish samples for contaminants and exotic species and map all physical characteristics of the river.

Fish sampling was done with trapnets, electrofishing and angling. Walleye, northern pike, yellow perch and white sucker were collected and will be analyzed for contaminants. Crayfish traps were set at the bridge and at Everett Rapids. About 40 or so crayfish were sampled and none were rusty crayfish.

Table 1. Fish Species of the Vermilion River

Catostomidae - Suckers:
- White Sucker
- Shorthead Redhorse

Centrarchidae - Sunfishes:
- Rock Bass
- Pumpkinseed
- Bluegill
- Smallmouth Bass
- Largemouth Bass
- Black Crappie

Cottidae - Sculpins:
- Sculpin

Cyprinidae - Minnows:
- Common Shiner
- Blackchin Shiner
- Blacknose Shiner
- Spottail Shiner
- Mimic Shiner
- Bluntnose Minnow

Fathead Minnow

Esocidae - Pike:

Northern Pike

Umbridae - Mudminnows:
- Central Mudminnow

Gadidae - Codfishes:
- Burbot

Gasterosteidae - Sticklebacks:
- Brook Stickleback

Ictaluridae - Catfishes:
- Black Bullhead
- Tadpose Madtom

Percidae - Perches:
- Johnny Darter
- Logperch

Yellow Perch
- Walleye

Fish sampled by seining, trapnets, electrofishing, and angling. 1973 survey and 1994 reconnaissance.

Wildlife Resources:

The presettlement vegetation of the Vermilion River has been altered by a combination of woodland conversion to agriculture, logging and changes in fire frequency. These changes to the vegetation have affected both the diversity and abundance of wildlife species. The Vermilion River has extensive stretches that have only been impacted by logging and changes in the presettlement vegetation. Throughout these areas, the wildlife species would be more similar to presettlement times.

Because of the extensive wild rice beds located along the river, waterfowl use of the river and adjacent wetlands can be considerable. Some waterfowl that would be seen by a traveler on the river are: mallards, ringnecked ducks, common goldeneyes, wood ducks, and hooded mergansers. Other waterbirds regularly seen are: herring, ring billed gulls, great blue herons, and spotted sandpipers. A traveler could also see a variety of raptors and songbirds, including: bald eagles, red-tailed hawks, American kestrels, broad-winged hawks, sharp-shinned hawks, barred owls, pileated woodpeckers, tree swallows, bank swallows, common ravens, American redstarts, common grackles and norther orioles. Game birds found in the area are: ruffled grouse, spruce grouse, American woodcock, and common snipe.

The river corridors also provide opportunities to see a variety of mammals including: eastern timber wolves, coyotes, red fox, black bears, white-tailed deer, moose, beaver, river otters, mink, muskrats, pine marten and fisher.

THREATENED OR ENDANGERED SPECIES

A species can be on Federal, State, or both endangered or threatened species lists.

An endangered species is one that is faced with extinction in all or a portion of its range. A threatened species is likely to become endangered within the foreseeable future. Minnesota also has a category of Special Concern species which may become threatened or endangered under certain circumstances.

There are two endangered or threatened species that use the Vermilion River corridor. They are the eastern timber wolf and the bald eagle.

*Note: At the time of this printing, the DNR has proposed a new list of Minnesota's endangered, threatened and special concern species. This list is currently under revision.

Eastern Timber Wolf:

Federal Status: threatened in Minnesota, endangered in the rest of the Eastern U.S.
State Status: threatened

The summary below from the "Recovery Plan for the Eastern Timber Wolf" (revised in 1992) explains the status and potential future of the eastern timber wolf.

Current Status: The eastern timber wolf is a subspecies of the gray wolf and is listed as threatened in Minnesota and endangered throughout most of the remainder of its historic range in the Eastern United States. A stable and growing population estimated at 1,550 to 1,750 wolves currently exists in Minnesota. Approximately 45 to 60 wolves comprise a second population in northern Wisconsin and the Upper Peninsula of Michigan. An additional thirteen or fourteen wolves are located in Isle Royale National Park, Michigan.

Habitat Requirements and Limiting Factors: This subspecies cannot survive over the long term without (1) large tracts of wild land with low human densities and minimal accessibility by humans and (2) the availability of adequate wild prey, largely ungulates and beaver. Currently, it is believed that there exists sufficient suitable habitat in Minnesota, Wisconsin and Michigan to achieve the recovery criteria.

Recovery Objective: Delisting.

Recovery Criteria: At least two viable populations within the 48 United States satisfying the following conditions must exist: (1) the Minnesota population must be stable or growing, and its continued survival must be assured; and (2) a second population outside of Minnesota and Isle Royale must be re-established, having at least 100 wolves in late winter if located within 100 miles of the Minnesota population, or having at least 200 wolves beyond that distance. These population levels must be maintained for five consecutive years before delisting can occur. A Wisconsin-Michigan population of 100 wolves is considered to be a viable second population, because continued immigration of Minnesota wolves will supplement it demographically and genetically for the foreseeable future.

Reclassification Criterion: The Wisconsin wolf population should be reclassified to threatened status when the late-winter Wisconsin population is maintained at 80 wolves for three consecutive years. Reclassifying Michigan wolves may be considered at that time.

Bald Eagle:

Federal Status: threatened

State Status: threatened

Minnesota's bald eagle population continues to expand. There were 568 occupied breeding territories in 1993.

In 1983 the Northern States Bald Eagle Recovery Plan set a goal of 300 occupied breeding areas in Minnesota by the year 2000. This is the seventh consecutive year in which Minnesota has exceeded that goal. In the contiguous United States, only Florida has a larger breeding population than Minnesota.

There are 5 known nests on the Vermilion River. Bald eagle management along the rivers involves two primary objectives.

First of all, large trees for roosting, hunting and nesting need to be protected. White pine is one of the most commonly used nest trees. Every opportunity should be taken to protect the very large white pine for future nest sites on all lands next to the river. White pine should also be planted for future nest trees. Hunting perches are usually large open-branched trees or snags near the river. Managing for an older forest within the corridor will assure a continuing supply of these larger trees or snags.

Secondly, the Bald Eagle Nest Site Management Recommendations that were developed by federal and state agencies should be used to protect known nest sites. These guidelines are:

Buffer zones must be established around all nests in the breeding area regardless of their activity status, since alternate nests are often used as feeding platforms or roosting sites.

Primary Zone (0-110 yards)
All land use except actions necessary to protect or improve the nest site should be prohibited.

Secondary Zone (110-220 yards)
Land use activities that result in permanent changes to the landscape such as clear cutting, shearing or major construction should be prohibited at all times. Actions such as stand thinning, pruning or maintenance on existing improvements can be permitted from June 15 to February 15.

Tertiary Zone (220-880 yards)
This zone can be reduced to 440 yards when a nest is built where there is more development. Clear cutting, land clearing and major construction can be permitted at a distance of 220 yards or more from the nest site from October 1 through February 15.

Sensitive Animals:

The Cougar and the Canada Lynx are two of the species listed in the Superior National Forests Sensitive Animal list:

Cougar:

The cougar is considered one of Minnesota's rarest mammals. Many documented sightings have taken place in the Superior National Forest, but there is no evidence to suggest that these animals breed or permanently reside here (Coffin and Pfannmuller 1988). Primary determinants of preferred cougar habitat are the distribution of it's primary prey (white-tailed deer), absence of human disturbance, and availability of stalking cover such as cliffs or ledges (Coffin and Pfannmuller 1988).

Canada Lynx:

The Canada lynx is an uncommon, solitary animal which is near the southern limit of its range in the Superior National Forest. It ranges widely over remote forested areas and swamps in pursuit of its primary prey, the snowshoe hare (Lepus americanus). The hare is typically most abundant in lowland conifer forests, but also uses forests with dense shrub layers for cover and food. The lynx population fluctuates with that of the hare. Additionally, where human populations are dense the lynx is rare.

A list of additional Endangered, Threatened or Sensitive animals in the Superior National Forest is located in the appendix section of this book.

Sensitive Plants:

There are numerous sensitive plants that can exist in the Vermilion River corridors because of the presence of suitable habitat. At this time no surveys have been implemented for this.

A list of Sensitive Plant species is located in the appendix section of this book.

Definitions:

1. Endangered Species. Federal (Endangered Species Act, Section 3): Any species in danger of extinction throughout all or a significant portion of its range. Minnesota (State Statute 84.0895): Same as federal, or - a species threatened with extirpation within Minnesota and dependent on a scarce, sensitive and/or exploited habitat in Minnesota and neighboring states.

2. Threatened Species. Federal (Endangered Species Act, Section 3): Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range and that the appropriate Secretary has designated as a threatened species. Minnesota (State Statute 84.0895): A species likely to become endangered (based on the criteria listed for the Minnesota endangered category) within the foreseeable future.

3. Special Concern. Minnesota (State Statute 84.0895): A species that, although not endangered or threatened, is extremely uncommon in Minnesota, or has unique or highly specific habitat requirements and deserves careful monitoring of its status; a species on the periphery of its range that is not listed as endangered or threatened; a species that was once endangered or threatened but now has increasing or protected, stable populations and/or a species whose breeding biology is affected by humans.

4. Regional Sensitive Species. (Forest Service Manual 2670.5): Those plant and animal species identified by a Regional Forester for which population viability is a concern, as evidenced by:

a) Significant current or predicted downward trends in population numbers or density.

b) Significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

VEGETATION

The following copy concerning the vegetation within the area of the Vermilion River is taken from the U.S. Forest Services Superior National Forest Wild and Scenic River Evaluation.

The Vermilion River is located near the transition zone between the northern boreal forest and eastern deciduous forest. This location generates an unusual diversity in both individual plants and types of vegetative communities.

The vegetation along the Vermilion River is quite varied. The upper part of the river is a combination of shrub swamps and marsh and moist-site hardwoods and conifers (balsam fir, black ash). After Table Rock Falls where the river narrows, the vegetation is mostly upland and moist site hardwoods with little or no emergent vegetation. Beyond Buyck the vegetation is indicative of a wetland community. Swamp hardwoods followed by march grasses and wild rice inhabit the shoreline. In the final few miles of the river, the rocky shoreline supports longer lived conifers and sparse brush.

FORESTRY MANAGEMENT

Shoreland Aesthetics Protection:

Congress passed the Shipstead-Nolan Act in July, 1930 (Chapter 881, Statutes at Large, Vol. 46. pg. 1020). The State Legislature followed suit by passing MSA 92.45.

The federal law prohibits logging on land adjacent to lakes and rivers that can be used for canoeing or boating within the area defined by the law. This act applies to such waters within this boundary and to the parts of these same waters that extend beyond the boundary. Also included are Burntside and Vermilion Lakes. Only diseased, insect infested, dying or dead timber may be cut within 200 feet of the shoreline and if aesthetic quality is affected, no logging is permitted within 400 feet of the high water mark on federal lands.

MSA 92.45 extends the restrictions of the Shipstead-Nolan Act to all state lands and county lands within the same geographic area. In addition, this state law mandates the protection of sustained timber yields, watersheds, wildlife habitat, shorelines and scenic features while harvesting timber on state lands adjacent to meandered lakes and other public waters and watercourses.

INSERT - “SHIPSTEAD-NOLAN ACT BOUNDARIES” CHART

IV. WATER QUALITY

Classification

The Vermilion River is not specifically classified in the State rules (Chapter 7050) but it falls into a category of classification 2B, 3B, 4A, 5 and 6. This is the classification for waters of the state that do not have a specific classification. These classifications have numeric water quality values that must be met. The classifications for the water bodies of the state are: 1 - consumption, 2 - aquatic life and recreation, 3 - industrial consumption, 4 - agriculture and wildlife, 5 - aesthetic enjoyment and navigation, 6 - other uses and 7 - limited resource value waters.

Water Quality

Water quality monitoring is accomplished in a number of ways in Minnesota. The MPCA has a routine monitoring program. In this program the Agency chooses sites throughout the state in all of the major watersheds and does intensive monitoring at those sites for a year or more. The other sources of monitoring information includes intensive survey stations and site specific assessment to address a problem.

All of the data available for the Vermilion River is very old. Only two sites have been monitored. At one site the data was collected in 1967 and 1968 and the other site data was collected from 1968 to 1972. This data is too old to use to make any judgements on the water quality of the river. It appears at the time though that the water quality was similar to other water bodies in the Northern Lakes and Forest Ecoregion. Ecoregions are areas of the state that have similar physical characteristics. In each of the ecoregions unimpacted lakes and streams were identified and monitored. This information is then used as background data for comparing water quality data that is gathered.

Water Treatment Plant Discharges

Orr:

*NPDES permit issued February 17, 1994
*Discharges to Pelican Lake (very close to Pelican River)
*Class B facility which includes: lift station, bar screen, grit chamber, primary settling, trickling filter, final clarifier, chlorination facility, dechlorification facility and anaerobic sludge digester
*Designed to treat a flow of 99,300 gallons per day

Effluent Limitations (calendar month average):
*5-day carbonaceous biological oxygen demand=40 mg/l (65% removal)
*Biological Oxygen Demand=100 mg/l
*Total Suspended Solids=45 mg/l (65% removal)
*Fecal Coliform group organisms=200 organisms/100ml
*pH between 6 and 9
*No discharge of floating solids or foam
*No oil or other substances which create a visible color film

Tower:

*NPDES permit issued September 30, 1991
*Discharges to east Two River
*Class D facility which includes: two lift stations, force main and 3 cell stabilization pond with alum addition as secondary treatment
*Designed to treat a flow of 172,000 gallons per day

Effluent Limitation (calendar month average)
*5-day carbonaceous biological oxygen demand=25 mg/l (65% removal)
*Biological Oxygen Demand=75 mg/l
*Total Suspended Solids=45 mg/l (65% removal)
*Fecal Coliform group organisms=200 organisms/100ml
*pH between 6 and 9
*No discharge of floating solids or foam
*No oil or other substances which create a visible color film

V. VERMILION RIVER MODEL SHORELAND MANAGEMENT ORDINANCE

A process to incorporate the Vermilion River Shoreland Ordinance into St. Louis County's Shoreland Ordinance will occur after completion of the Vermilion River Plan.

The steering committee has allowed a 100 ft setback (septic setback of 150 ft) from the ordinary high water mark in the remote section so the river may be seen.

The adjustment was made by increasing lot width (at building line and water line) to 400 feet.

SECTION 1.0
STATUTORY AUTHORIZATION AND POLICY

1.1 Statutory Authorization

This shoreland ordinance is adopted pursuant to the authorization and policies contained in Minnesota Statutes, Chapter 103, Minnesota Regulations, Parts 6120.2500 - 6120.3900, and the planning and zoning enabling legislation in Minnesota Statutes, Chapter 394.

1.2 Policy

The uncontrolled use of the shorelands of the Vermilion River affects the public health, safety and general welfare not only by contributing to pollution of public waters, but also by impairing the local tax base. Therefore, it is in the best interests of the public health, safety and welfare to provide for the wise subdivision, use and development of these river corridors. The Legislature of Minnesota has delegated responsibility to local governments of the state to regulate the subdivision, use and development of the shorelands of public waters and thus preserve and enhance the quality of surface waters, conserve the economic and natural environmental values of shorelands, and provide for the wise use of waters and related land resources. This responsibility is hereby recognized by the Vermilion River Management Board, and St. Louis County.

SECTION 2.0
GENERAL PROVISIONS AND DEFINITIONS

2.1 Jurisdiction

The provisions of this ordinance shall apply to the "protected waters" within Vermilion River corridors as classified in this ordinance.

2.2 Compliance

The use of any shoreland of public waters; the size and shape of lots; the use, size, type and location of structures on lots; the installation and maintenance of water supply and waste treatment systems; the grading and filling of any shoreland area; the cutting of shoreland vegetation; and the subdivision of land shall be in full compliance with the terms of this ordinance and other applicable regulations.

2.3 Enforcement

The_____(local government or designated official) is responsible for the administration and enforcement of this ordinance. Any violation of the provisions of this ordinance or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with

grants of variances or conditional uses) shall constitute a misdemeanor and shall be punishable as defined by law. Violations of this ordinance can occur regardless of whether or not a permit is required for a regulated activity pursuant to Section 3.1 of this ordinance.

2.4 Interpretation

In their interpretation and application, the provisions of this ordinance shall be held to be minimum requirements and shall be construed in favor of the governing body and shall not be deemed a limitation or repeal of any other powers granted by State Statutes.

2.5 Severability

If any section, clause, provision, or portion of this ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected thereby.

2.6 Abrogation and Greater Restrictions

It is not intended by this ordinance to repeal, abrogate or impair any existing easements, covenants, or deed restrictions. However, where this ordinance imposes greater restrictions, the provisions of this ordinance shall prevail.

2.7 Definitions

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the same meaning as they have in common usage and so as to give this ordinance its most reasonable application. For the purpose of this ordinance, the words "must" and "shall" are mandatory and not permissive. All distances, unless otherwise specified, shall be measured horizontally.

2.710 Agriculture definition - refer to section 5.62 of this ordinance.

2.711 Accessory structure or facility. "Accessory structure" or "facility" means any building or improvement subordinate to a principal use which, because of the nature of its use, can reasonably be located at or greater than normal structure setbacks.

2.712 Aquaculture. "Aquaculture" means the raising of aquatic life for consumption or sale.

2.713 Bluff. "Bluff" means a topographic feature such as a hill, cliff or embankment having the following characteristics (an area with an average slope of less than 18 percent over a distance for 50 feet or more shall not be considered part of the bluff):

(1) Part or all of the feature is located in a shoreland area;

(2) The slope rises at least 25 feet above the ordinary high water level of the water body;

(3) The grade of the slope from the toe of the bluff to a point 25 feet or more above the ordinary high water level averages 30 percent or greater; and

(4) The slope must drain toward the water body.

2.714 Bluff impact zone. "Bluff impact zone" means a bluff and land located within 20 feet from the top of a bluff. An area with an average slope of less than 18% over a distance of 50 feet or more, shall not be considered part of the bluff.

2.715 Boathouse. "Boathouse" means a structure designed and used solely for the storage of boats or boating equipment

2.716 Buffer. "Buffer" means the use of land topography, spaces and screening to separate uses or structures.

2.717 Bunkhouse. "Bunkhouse" means a residential accessory structure used for sleeping quarters with no sanitation, cooking facilities or water under pressure.

2.718 Building line. "Building line" means a line parallel to a lot line or the ordinary high water level at the required setback beyond which a structure may not extend.

2.719 Commercial planned unit developments. "Commercial planned unit developments" are typically uses that provide transient, short-term lodging spaces, rooms or parcels and their operations are essentially service-oriented. For example, hotel/motel accommodations, recreational vehicle and camping parks, and other primarily service-oriented activities are commercial planned unit developments.

2.720 Commercial use. "Commercial use" means the principal use of land or buildings for the sale, lease, rental or trade of products, goods and services.

2.721 Commissioner. "Commissioner" means the commissioner of the Department of Natural Resources.

2.722 Conditional use. "Conditional Use" means a land use or development as defined by ordinance that would not be appropriate generally but may be allowed with appropriate restrictions as provided by official controls upon a finding that certain conditions as detailed in the zoning ordinance exist, the use or development conforms to the comprehensive land use plan of the community, and the use is compatible with the existing neighborhood.

2.723 Deck (attached). "Deck (attached)" means a horizontal, unenclosed platform that is attached or functionally related to a structure. An attached deck shall have no roof, extended soffit, nor walls, but may have railings, seats, or other related features.

Deck (detached). "Deck (detached)" means a horizontal, unenclosed platform that is freestanding, greater than 18 inches in height at any point, and is not attached nor functionally related to a structure. A detached deck shall have no roof, extended soffit, nor walls, but may have railings, seats or other related features.

2.724 Duplex, triplex, and quad. "Duplex", "triplex" and "quad" means a dwelling structure on a single lot, having two, three, and four units, respectively, being attached by common walls and each unit equipped with separate sleeping, cooking, eating, living, and sanitation facilities.

2.725 Dwelling site. "Dwelling site" means a designated location for residential use by one or more persons using temporary or movable shelter, including camping and recreational vehicle sites.

2.726 Dwelling unit. "Dwelling unit" means any structure or portion of a structure, or other shelter designed as short- or long-term living quarters for one or more persons, including rental or timeshare accommodations such as motel, hotel, and resort rooms and cabins.

2.727 Exploratory Boring. "Exploratory Boring" means a surface drilling done to explore or prospect for oil, natural gas and metallic minerals, including iron, copper, zinc, lead, gold, silver, titanium, vanadium, nickel, cadmium, molybdenum, chromium, manganese, cobalt, zirconium, beryllium, thorium, uranium, aluminum, platinum, palladium, radium, tantalum, tin and niobium, and a drilling or boring for petroleum.

2.728 Extractive use. "Extractive use" means the use of land for surface or subsurface removal of sand, gravel, rock, industrial minerals, other nonmetallic minerals, and peat not regulated under Minnesota Statutes, sections 93.44 to 93.51.

2.729 Filter strip. "Filter strip" means the use of land topography and native vegetation to provide runoff, erosion and sedimentation control.

2.730 Forest land conversion. "Forest land conversion" means the clear cutting of forested lands to prepare for a new land use other than reestablishment of a subsequent forest stand.

2.731 Guest cottage. "Guest cottage" means a structure used as a dwelling unit that may contain sleeping spaces and kitchen and bathroom facilities in addition to those provided in the primary dwelling unit on a lot. Guest cottages are considered a principal structure.

2.732 Hardship. "Hardship" means the same as that term is defined in Minnesota Statutes, Chapter 394 (for counties) or Chapter 462 (for municipalities).

2.733 Height of building. "Height of building" means the vertical distance between the highest point on the roof and the lowest at the ground level where the building foundation meets the ground.

2.734 Industrial use. "Industrial use" means the use of land or buildings for the production, manufacture, warehousing, storage or transfer of goods, products, commodities or other wholesale items.

2.735 Intensive vegetation clearing. "Intensive vegetation clearing" means the complete removal of trees or shrubs in a contiguous patch, strip, row or block.

2.736 Lot. "Lot" means a parcel of land designated by plat, metes and bounds, registered land survey, auditors plot or other accepted means and separated from other parcels or portions by said description for the purpose of sale, lease or separation.

2.737 Lot water frontage. "Lot water frontage" shall be the minimum distance between the points of intersection of the side lot lines and the ordinary high water level.

2.738 Lot width. "Lot width" shall be the distance between the side lot lines measured at the building line. The building line for parcels with shore frontage shall be the minimum principal structure setback distance as required for the Vermilion River classification and the location of the on-site sewage treatment system and expansion area. Lot width for parcels that do not have shore frontage shall be the location at which the building and on-site sewage system is located.

2.739 Mining. "Mining" means the process of removing; stockpiling; storing; transporting; excluding use of common carrier and public transportation systems; and reclaiming a material in connection with the commercial production of metallic minerals.

2.740 Nonconformity. "Nonconformity" means any legal use, structure or parcel of land already in existence, recorded or authorized before the adoption of official controls or amendments thereto that would not have been permitted to become established under the terms of the official controls as now written, if the official controls had been in effect prior to the date it was established, recorded or authorized.

2.741 Ordinary high water level. "Ordinary high water level" means the boundary of public waters and wetlands, and shall be an elevation delineating the highest water level which has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. For watercourses, the ordinary high water level is the elevation of the top of the bank of the channel. For reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool.

2.742 Peat Mining. "Peat Mining" means the removal of peat for commercial purposes, including draining, stockpiling, processing, storing, transporting, and reclaiming any material in connection with the commercial development of peat.

2.743 Planned unit development. "Planned unit development" means a type of development characterized by a unified site design for a number of dwelling units or dwelling sites on a parcel, whether for sale, rent or lease, and also usually involving clustering of these units or sites to provide areas of common open space, density increases and a mix of structure types and land uses. These developments may be organized and operated as condominiums, time-share condominiums, cooperatives, full fee ownership, commercial enterprises or any combination of these, or cluster subdivisions of dwelling units, residential condominiums, townhouses, apartment buildings, campgrounds, recreational vehicle parks, resorts, hotels, motels, and conversions of structures and land uses to these uses.

2.744 Public waters. "Public waters" means any waters as defined in Minnesota Statutes, Section 103G.005, Subd. 15-18.

2.745 Residential planned unit development. "Residential planned unit development" means a use where the nature of residency is nontransient and the major or primary focus of the development is not service-oriented. For example, residential apartments, manufactured home parks, time-share condominiums, townhouses, cooperatives and full fee ownership residences would be considered as residential planned unit developments. Residential structures where an agent is employed to promote rental of units in a manner similar to a resort shall be considered a commercial planned unit development.

2.746 Semipublic use. "Semipublic use" means the use of land by a private, nonprofit organization to provide a public service that is ordinarily open to some persons outside the regular constituency of the organization.

2.747 Sensitive resource management. "Sensitive resource management" means the preservation and management of areas unsuitable for development in their natural state due to constraints such as shallow soils over groundwater or bedrock, highly erosive or expansive soils, steep slopes, susceptibility to flooding, or occurrence of flora or fauna in need of special protection.

2.748 Setback. "Setback" means the minimum horizontal distance between where a structure or principal use may be placed and the ordinary high water level, road, front, side, sewage system, well, bluff or rear lot lines.

2.749 Sewage treatment system. "Sewage treatment system" means a septic tank and soil absorption system or other individual or cluster type sewage treatment system as described and regulated in Section 5.8 of this ordinance.

2.750 Sewer system. "Sewer system" means pipelines or conduits, pumping stations and force main, and all other construction, devices, appliances, or appurtenances used for conducting sewage or industrial waste or other wastes to a point of ultimate disposal.

2.751 Shore impact zone. "Shore impact zone" means land located between the ordinary high water level of a public water and a line parallel to it at a setback of 50 percent of the structure setback.

2.752 Shoreland. "Shoreland" means land located within the distances from the ordinary high water level or the landward extent of the floodplain designated by ordinance, whichever is greater.

2.753 Significant historic site. "Significant historic site" means any archaeological site, standing structure or other property that meets the criteria for eligibility to the National Register of Historic Places or is listed in the State Register of Historic Sites, or is determined to be an unplatted cemetery that falls under the provisions of Minnesota Statutes, section 307.08. A historic site meets these criteria if it is presently listed on either register or if it is determined to meet the qualifications for listing after review by the Minnesota state archaeologist or the director of the Minnesota Historical Society. All unplatted cemeteries are automatically considered to be significant historic sites.

2.754 Steep slope. "Steep slope" means land where agricultural activity or development is either not recommended or described as poorly suited due to slope steepness and the site's soil characteristics, as mapped and described in available county soil surveys or other technical reports, unless appropriate design and construction techniques and farming practices are used in accordance with the provisions of this ordinance. Where specific information is not available, steep slopes are lands having average slopes over 12 percent, as measured over horizontal distances of 50 feet or more, that are not bluffs.

2.755 Structure. "Structure" means anything more than 30 inches high placed, constructed or erected with a fixed location on the ground, including portable buildings, mobile homes, signs, earth sheltered homes and swimming pools. Fences, utility poles, lawn lights, non-commercial communication towers not containing dish antennas, non-commercial wind generating towers and related minor equipment shall not be considered structures. Unattached decks regardless of height shall be considered a structure if within the shore setback area for principal structures.

2.756 Subdivision. "Subdivision" means land that is divided for the purpose of sale, rent or lease, including planned unit developments.

2.757 Surface water-oriented commercial use. "Surface water-oriented commercial use" means the use of land for commercial purposes, where access to and use of a surface water feature is an integral part of the normal conductance of business. Marinas, resorts and restaurants with transient docking facilities are examples of such use.

2.758 Toe of the bluff. "Toe of the bluff" means the point on a bluff where there is, as visually observed, a clearly identifiable break in the slope, from gentler to steeper slope above. If no break in the slope is apparent, the toe of bluff shall be determined to be the lower end of a 50-foot segment, measured on the ground, with an average slope exceeding 18 percent.

2.759 Top of the bluff. "Top of the bluff" means the point on a bluff where there is, as visually observed, a clearly identifiable break in the slope, from steeper to gentler slope above. If no break in the slope is apparent, the top of bluff shall be determined to be the upper end of a 50-foot segment, measured on the ground, with an average slope exceeding 18 percent.

2.760 Variance. "Variance" means the same as that term is defined or described in Minnesota Statutes, Chapter 394 (for counties) or Chapter 462 (for municipalities).

2.761 Water-oriented accessory structure or facility. "Water-oriented accessory structure or facility" means a small, above ground building or other improvement, except stairways, fences, docks and retaining walls, which, because of the relationship of its use to a surface water feature, reasonably needs to be located closer to public waters than the normal structure setback. Examples of such structures and facilities include boathouses, gazebos, screen houses, fish houses, pump houses and detached decks.

2.762 Wetland. "Wetlands" shall be defined by Minnesota Wetland Conservation Act of 1991, Chapter 354 and all subsequent amendments.

SECTION 3.0
ADMINISTRATION

3.1 Permits Required

3.11 A permit is required for the construction of buildings or building additions (and including such related activities as construction of decks and signs), the installation and/or alteration of sewage treatment systems, and those grading and filling activities not exempted by Section 5.3 of this ordinance. Application for a permit shall be made to the (designated official) of St. Louis County on the forms provided. The application shall include the necessary information so that _____(designated official) can determine the site's suitability for the intended use and that a compliant sewage treatment system will be provided.

3.12 A permit authorizing an addition to an existing structure shall stipulate that an identified nonconforming sewage treatment system, as defined by Section 5.8, shall be reconstructed or replaced in accordance with the provisions of this ordinance.

3.2 Certificate of Zoning Compliance

St. Louis County_____(designated official) shall issue a certificate of zoning compliance for each activity requiring a permit as specified in Section 3.1 of this ordinance. This certificate will specify that the use of land conforms to the requirements of this ordinance. Any use, arrangement, or construction at

variance with that authorized by permit shall be deemed a violation of this ordinance and shall be punishable as provided in Section 2.3 of this ordinance.

3.3 Variances

3.31 Variances may only be granted in accordance with Minnesota Statutes, Chapter 394 (for counties), as applicable. A variance may not circumvent the general purposes and intent of this ordinance. No variance may be granted that would allow any use that is prohibited in the zoning district in which the subject property is located. Conditions may be imposed in the granting of a variance to ensure compliance and to protect adjacent properties and the public interest. In considering a variance request, the board of adjustment must also consider whether the property owner has reasonable use of the land without the variance, whether the property is used seasonally or year-round, whether the variance is being requested solely on the basis of economic considerations, and the characteristics of development on adjacent properties.

3.32 The board of adjustment shall hear and decide requests for variances in accordance with the rules that it has adopted for the conduct of business. When a variance is approved, after the Department of Natural Resources and/or the Vermilion River Management Board has formally recommended denial in the hearing record, the notification of the approved variance required in Section 3.42 below shall also include the board of adjustment's summary of the public record/testimony and the findings of facts and conclusions which supported the issuance of the variance.

3.33 For existing developments, the application for variance must clearly demonstrate whether a conforming sewage treatment system is present for the intended use of the property. The variance, if issued, must require reconstruction of a nonconforming sewage treatment system.

3.4 Notifications to the Department of Natural Resources

3.41 Copies of all notices of any public hearings to consider variances, amendments or conditional uses under local shoreland management controls must be sent to the commissioner or the commissioner's designated representative and postmarked at least ten days before the hearings. Notices of hearings to consider proposed subdivisions/plats must include copies of the subdivision/plat.

3.42 A copy of approved amendments and subdivisions/plats, and final decisions granting variances or conditional uses under local shoreland management controls must be sent to the commissioner or the commissioner's designated representative and postmarked within ten days of final action.

3.5 Notifications to the Vermilion River Management Board

3.51 The VRMB will receive copies of all notices of any public hearings, etc., at least ten days before the conduct of any such meetings to allow time to comment and question. A copy of approved amendments and subdivisions/plats, and final decisions granting variances or conditional uses under local shoreland management controls must be sent to the Vermilion River Management Board or the VRMB designated representative and postmarked within ten days of final action. The local units of government will take into consideration recommendations from the VRMB before final decisions are granted on uses in the Vermilion River corridor. Local units of government have the final decisions after all public notification(s) and hearings are made on all uses of the river corridor. The VRMB shall respond within 30 days from the public hearing.

SECTION 4.0
SHORELAND CLASSIFICATION SYSTEM AND LAND USE DISTRICTS

4.1 Shoreland Classification System

The Vermilion River within St. Louis County has been classified below consistent with the criteria found in Minnesota Regulations, Part 6120.3300, and the Protected Waters Inventory Map for St. Louis County, Minnesota.

4.11 The shoreland area for the water bodies listed in section 4.12 shall be as defined in section 2.744 and as shown on the Official Zoning Map.

4.12 Rivers

River Segment(s) Classification

Vermilion River (St. Louis County)

(1) Remote - T67N, R17W mouth of Crane Lake upstream to southern boundary Sec. 32, T66N, R17W Town of Portage.

(2) Forested - north boundary Sec. 5, T65N, R17W to Eight Mile Creek, NW 1/4 of Sec. 2, T64N, R17W

(3) Remote - from junction of Eight Mile Creek T64N, R17W to its source at Wolf's Bay, T63N, R17W, SW 1/4 of Sec. 2

*All protected watercourses in St. Louis County shown on the Protected Waters Inventory Map for St. Louis County, a copy of which is hereby adopted by reference and not given a classification in Items A or B above shall be considered "Tributary".

4.2 Land Use District Descriptions

4.21 Criteria For Designation. The land use districts in Section 4.22, and the delineation of a land use district's boundaries on the Official Zoning Map, must be consistent with the goals, policies, and objectives of the VRMB management plan and the following other criteria, considerations and objectives:

A. General Considerations and Criteria for All Land Uses:

(1) preservation of natural areas;

(2) present ownership and development of shoreland areas;

(3) shoreland soil types and their engineering capabilities;

(4) topographic characteristics;

(5) vegetative cover;

(6) in-water physical characteristics, values and constraints;

(7) recreational use of the surface water;

(8) road and service center accessibility;

(9) socioeconomic development needs and plans as they involve water and related land resources;

(10) the land requirements of industry which, by its nature, requires location in shoreland areas; and

(11) the necessity to preserve and restore certain areas having significant historical or ecological value.

B. Factors and Criteria for Planned Unit Developments:

(1) existing recreational use of the surface waters and likely increases in use associated with planned unit developments;

(2) physical and aesthetic impacts of increased density;

(3) suitability of lands for the planned unit development approach;

(4) level of current development in the area; and

(5) amounts and types of ownership of undeveloped lands.

4.22 Land Use District Descriptions. The land use districts provided below, and the allowable land uses therein shall be properly delineated on the Official Vermilion River zoning map. These land use districts are in conformance with the criteria specified in Minnesota Regulation, Part 6120.3200, Subp. 3;

A. Land Use Zoning Districts for Vermilion River

Zoning district boundaries are delineated on the river maps which are a part of this management plan.

B. Proposed Uses Within River Zoning Districts

The purpose of regulating uses within the zoning district(s) is to maintain the existing environmental quality of the Vermilion River and its shoreland and to prohibit new uses which are incompatible with the purpose of this ordinance and the Vermilion River management plan.

Permitted, Conditional, and Permitted with Performance Standards Uses*

Permitted uses:
These uses are allowed with a permit from the County provided all standards found in this Ordinance are being followed. Additional uses may be permitted if similar to the listed Permitted Uses and the purpose statement of that district.

Permitted Uses with Performance Standards:
These uses are permitted if the standards found in this Ordinance are met and those standards are part of the permit. If the standards cannot be met, the use may still be allowed through the Variance or Conditional Use process, depending upon the nature of the non-compliance with the standards identified by a "C" or "V" in the Ordinance.

Conditional Use Permits:
These uses require approval by the planning Commission in accordance with the criteria set forth in this Ordinance. Uses other than those listed, may be permitted through the conditional use process if similar to the uses listed under the Performance Standard or Conditional Use Standard of that zone district, and consistent with the purpose of that district.

<u>Shoreland Mixed Uses (SMU)</u>

A. Permitted Uses:
Single family dwellings
Seasonal dwellings

Public and semi-public, non commercial uses including trails, parks, beaches, waysides, etc.
Accessory uses
Home occupation

B. Permitted Uses with Performance Standards:

Signs
Accessory structures larger than 800 sq. ft.
Livestock
Water-orientated accessory uses
Two-family dwellings
Residential density control and density transfer
Home business

C. Uses authorized by Conditional Use Permit:

Planned unit developments
Multiple, two and three family dwellings
Waterfront commercial
Public/semi-public uses (other than listed in A)
Utility facilities
Borrow pits
Mineral exploration and evaluation
Public facility renovation
Group homes
Airports
Temporary wood processing
Off-site signs not to exceed 32 sq. ft. per side
Aquaculture, native species only

4.23 Use and Upgrading of Inconsistent Land Use Districts.

A. The land use districts adopted in Ordinance Number_____, Section _____, as they apply to shoreland areas, and their delineated boundaries on the Official Zoning Map, are not consistent with the land use district designation criteria specified in Section 4.22 herein. These inconsistent land use district designations may continue until revisions are proposed to change either the land use district designation within an existing land use district boundary shown on the Official Zoning Map or to modify the boundary of an existing land use district shown on the Official Zoning Map.

B. When a revision is proposed to an inconsistent land use district provision, the following additional criteria and procedures shall apply:

The land use district boundaries and the use provisions therein for all shoreland on both sides of the river or stream within the same classification within the jurisdiction of this ordinance must be revised to make them substantially compatible with the framework in Sections 4.21 and 4.22 of this ordinance. If the same river classification is contiguous for more than a five-mile segment, only the shoreland for a distance of 2.5 miles upstream and downstream, or to the class boundary if closer, need be evaluated and revised.

C. When an interpretation question arises about whether a specific land use fits within a given "use" category, the interpretation shall be made by St. Louis County. When a question arises as to whether a land use district's boundaries are properly delineated on the Official Zoning Map, this decision shall be made by St. Louis County.

D. When a revision is proposed to an inconsistent land use district provision by an individual party or landowner, this individual party or landowner will only be responsible to provide the supporting and/or substantiating information for the specific parcel in question. St. Louis County will direct the _____ ___(designated official) to provide such additional information for this water body as is necessary to satisfy Items A and B.

E. The St. Louis County Board must make a detailed "Finding of Fact" and conclusion when taking final action that this revision, and the upgrading of any inconsistent land use district designations on said water body, are consistent with the enumerated criteria and use provisions of Section 4.2.

SECTION 5.0
ZONING AND WATER SUPPLY/SANITARY PROVISIONS

5.1 Lot Area and Width Standards.

The lot area (in square feet) and lot width standards (in feet) for single, duplex, triplex and quad residential lots created after the date of enactment of this Ordinance for the river/stream classifications are the following:

5.11 Lot Width (at building line and water line)

Remote	Forested
400 ft.	200 ft.

5.12 River Lot Area Standards
Lot size Vermilion in St. Louis County

Remote - SMU-4	Forested - SMU-5
4.5 acres	2.5 acres

5.13 Additional Special Provisions
Duplex - double acres and double width
Triplex - triple acres and triple width
Quads - quadruple acres and quadruple width

A. Residential subdivisions with dwelling unit densities exceeding those provided here can only be allowed if designed and approved as residential planned unit developments under Section 7.0 of this ordinance. Only land above the ordinary high water level of public waters can be used to meet lot area standards, and lot width standards must be met at both the ordinary high water level and at the building line. The sewer lot area dimensions provided here can only be used if publicly owned sewer system service is available to the property.

B. Subdivisions of duplexes, triplexes and quads on the Vermilion River must also meet the following standards:

(1) each building must be set back at least 200 feet from the ordinary high water level;

(2) each building must have a common and conforming sewage treatment and water systems and serve all dwelling units in the building;

(3) watercraft docking facilities for each lot must be centralized in one location and serve all dwelling units in the building; and

(4) no more than 15 percent of a river's shoreline can be in duplex, triplex, or quad developments.

C. Bunkhouses. The following minimum standard shall apply to bunkhouses:

(1) Bunkhouses shall be reviewed as added living and bedroom space, and the septic treatment system of the principal structure shall be sized to take into account the added water use.

(2) Bunkhouses located on riparian lots shall not exceed 260 square feet in ground floor area and 14 feet in height unless the following performance standard is met:

(a) They be located on lots that have two times the minimum lot area and width requirements.

D. Lots intended as controlled accesses to the Vermilion River or as recreation areas for use by owners of nonriparian lots within subdivisions are permissible and must meet or exceed the following standards:

(1) they must meet the width and size requirements for residential lots, and be suitable for the intended uses of controlled access lots.

(2) if docking, mooring, or over-water storage of more than six (6) watercraft is to be allowed at a controlled access lot, then the width of the lot (keeping the same lot depth) must be increased by the percent of the requirements for riparian residential lots for each watercraft beyond six, consistent with:

Controlled Access Lot Frontage Requirements increase by 25% per county subdivision regulations;

(3) they must be jointly owned by all purchasers of lots in the subdivision or by all purchasers of nonriparian lots in the subdivision who are provided riparian access rights on the access lot; and

(4) covenants or other equally effective legal instruments must be developed that specify which lot owners have authority to use the access lot and what activities are allowed. The activities may include watercraft launching, loading, storage, beaching, mooring, or docking. They must also include other outdoor recreational activities that do not significantly conflict with general public use of the public water or the enjoyment of normal property rights by adjacent property owners. Examples of the non-significant conflict activities include swimming, sunbathing, or picnicking. The covenants must limit the total number of vehicles allowed to be parked and the total number of watercraft allowed to be continuously moored, docked, or stored over water, and must require centralization of all common facilities and activities in the most suitable locations on the lot to minimize topographic and vegetation alterations. They must also require all parking areas, storage buildings, and other facilities to be screened by vegetation or topography as much as practical from view from the public water.

5.2 Placement, Design and Height of Structures

5.21 Placement of Structures on Lots. When more than one setback applies to a site, structures and facilities must be located to meet all setbacks. Where structures exist on the adjoining lots on both sides of a proposed building site, structure setbacks may be altered without a variance to conform to the adjoining setbacks from the ordinary high water level, provided the proposed building site is not located in a shore impact zone or in a bluff impact zone. Structures shall be located as follows.

A. Structure and on-site sewage system setbacks (in feet) from ordinary high water level*

Classes of Public Waters	Structures	Sewage Treatment Systems
Vermilion River		
Remote	100	150
Forested	150	100

100 foot setback shall be allowed in forested section if the parcel meets the dimensional standards of remote (4 ½ acres, 400 ft. width) and it shall be recorded.

Maximum Residential Structure Height:

Vermilion River 35 ft. (all segments)

*Protected Waters within the Shoreland District; minimum building setback of 100 ft, other Shoreland Dimensional Standards to apply.

*One water-oriented accessory structure designed in accordance with Section 5.22 of this Ordinance may be setback a minimum distance of ten (10) feet from the ordinary high water level.

B. Additional Structure Setbacks.

The following additional structure setbacks apply, regardless of the classification of the water body:

Setback From:	Setback (in feet)
(1) top of bluff;	30
(2) unplatted cemetery;	50

(3) County Standards apply to road setbacks

C. Bluff Impact Zones. Structures and accessory facilities, except stairways and landings, must not be placed within bluff impact zones.

(1) Bluff Area Standards

General Standards
Unless other provisions have been established for specific soil conditions the following standards shall apply in bluff areas:

(a) The land must slope towards a public water.

(b) The land must rise a minimum of 25 ft. from the ordinary high water level.

(c) The land has a slope of 30% but, if at any location within the slope, the percent slope becomes 18% or less over a 50 foot run, or there is an obvious break in the slope, the bluff impact zone shall not include that area.

The top of the bluff shall be that area where there is a clear break in the slope and generally where the slope is less than 18% over a 50 foot run. All structures must be set back a distance of 30 feet from where the break in the slope begins. The 30 foot setback standard may be waived if all of the following conditions are met: a) the building would encroach upon the sewage treatment system expansion area; b) vegetative screening and the integrity of the soil is maintained; and c) no alternative building site exists.

(2) Shallow Soils Bluff Standard

This standard applies to a bluff where the soil depth over ledge rock averages 24 inches or less. Where this condition exists, structures may be placed on the bluff at a setback from the ordinary high water level that equals 150% of the standard setback requirement, provided all of the following conditions are met:

(a) The parcel shall have suitable area set aside for a sewage treatment system and expansion area.

(b) Erosion control standards consistent with Soil and Water Conservation Service guidelines are followed.

(c) The shore impact zone shall be one-half the new structure setback.

150% waiver
Structures may be placed between the standard and 150% setback if all the following conditions exist:

(1) Approved sewage treatment and expansion area exists.

(2) Sufficient screening and vegetative filter strip exists.

(3) Erosion control standards consistent with Soil and Water Conservation Service guidelines are followed.

5.22 Design Criteria For Structures.

A. High Water Elevations. Structures must be placed in accordance with any floodplain regulations applicable to the site. Where these controls do not exist, the elevation to which the lowest floor, including basement, is placed or flood-proofed must be determined as follows:

(1) on rivers, by placing the lowest floor at least three feet above the flood of record, if data is available. If data is not available, by placing the lowest floor at least three feet above the ordinary high water level, or by conducting a technical evaluation to determine effects of proposed construction upon flood stages and flood flows and to establish a flood protection elevation. Under all three approaches, technical evaluations must be done by a qualified engineer or hydrologist consistent with parts 6120.5000 to 6120.6200 (State Shoreland regulations) governing the management of flood plain areas. If more than one approach is used, the highest flood protection elevation determined must be used for placing structures and other facilities; and

(2) water-oriented accessory structures may have the lowest floor placed lower than the elevation determined in this item if the structure is constructed of flood-resistant materials to the elevation, electrical and mechanical equipment is placed above the elevation and, if long duration flooding is anticipated, the structure is built to withstand ice action and wind-driven waves and debris.

B. Water-oriented Accessory Structure.

General Guidelines: Specific water oriented accessory structures shall be allowed at a reduced shoreline setback in certain zone districts with performance standards. They include saunas, boathouses, storage buildings and fish cleaning houses, screen houses, gazebos, detached decks and satellite dishes. A residential lot may only have one such structure per parcel, but additional structures would be permitted if parcel ownership exceeds the minimum lot area and width requirements for that district, and if spaced as if under separate ownership. Water oriented structures allowed within the shore impact zone shall be limited to storage buildings, screen houses, gazebos, detached decks and satellite dishes. Only one structure or satellite dish, of any type or use, new or existing, may be closer than the required principal structure setback (i.e. if there is an existing structure there from any time period, a new additional structure shall not be allowed). Except for saunas, a water oriented structure must be located within the shore impact zone or at the principal structure setback or beyond. There shall be no water oriented structure on nonconforming lots according to the DNR minimum shoreland classification unless it meets or exceeds the accessory structures that are not water-oriented structures.

C. Stairways, Lifts and Landings. Stairways and lifts are the preferred alternative to major topographic alterations for achieving access up and down bluffs and steep slopes to shore areas. Stairways and lifts must meet the following design requirements:

(1) stairways and lifts must not exceed four feet in width on residential lots. Wider stairways may be used for commercial properties, public open-space recreational properties and planned unit developments;

(2) landings for stairways and lifts on residential lots must not exceed 32 square feet in area. Landings larger than 32 square feet may be used for commercial properties, public open-space recreational properties and planned unit developments;

(3) canopies or roofs are not allowed on stairways, lifts or landings;

(4) stairways, lifts and landings may be either constructed above the ground on posts or pilings, or placed into the ground, provided they are designed and built in a manner that ensures control of soil erosion;

(5) stairways, lifts and landings must be located in the most visually inconspicuous portions of lots, as viewed from the surface of the public water to blend with surrounding conditions, whenever practical; and

(6) facilities such as ramps, lifts or mobility paths for physically handicapped persons are also allowed for achieving access to shore areas, provided that the dimensional and performance standards of subitems (1) to (5) are complied with in addition to the requirements of Minnesota Regulations, Chapter 1340 and the American Disabilities Act. Refer to St. Louis County Health Department for information.

D. Significant Historic Sites: No structure may be placed on a significant historic site in a manner that affects the values of the site unless adequate information about the site has been removed and documented in a public repository.

E. Steep Slopes. In areas where slope exceeds 12% over a horizontal distance of 50 or more feet, the Planning Director may require that the applicant, for any land use permit, submit information on how erosion will be prevented, existing vegetation preserved and the view from the surface water screened for structure and vehicles.

5.23 Height of Structures. All structures in residential districts, except churches and nonresidential agricultural structures, must not exceed 35 feet.

5.3 Shoreland Alterations

Alterations of vegetation and topography will be regulated to prevent erosion into public waters, fix nutrients, preserve shoreland aesthetics, preserve historic values, prevent bank slumping and protect fish and wildlife habitat. Refer to St. Louis County Ordinance.

5.30 Fertilizer and Pesticides. Use of fertilizer, pesticides or animal wastes within the corridors must be done in such a way as to minimize runoff into the shore impact zone or public water by proper use of earth, vegetation or both.

5.31 Vegetative Alterations

A. Vegetation alteration necessary for the construction of structures and sewage treatment systems and the construction of roads and parking areas regulated by Section 5.4 of this ordinance are exempt from the vegetation alteration standards that follow.

B. Removal or alteration of vegetation, except for agricultural and forest management uses as regulated in Sections 5.62 and 5.63, respectfully, is allowed subject to the following standards:

(1) Intensive vegetation clearing within the shore and bluff impact zones and on steep slopes is not allowed. Intensive vegetation clearing for forest land conversion to another use outside of these areas is allowable as a conditional use if an erosion control and sedimentation plan is developed and approved by the soil and water conservation district in which the property is located.

(2) In shore and bluff impact zones and on steep slopes, limited clearing of trees and shrubs, and cutting, pruning and trimming of trees is allowed to provide a view to the water from the principal dwelling site and to accommodate the placement of stairways and landings, picnic areas, access paths, livestock watering areas, beach and watercraft access areas, and permitted water-oriented accessory structures or facilities, provided that;

(a) the screening of structures, vehicles or other facilities as viewed from the water is not substantially reduced;

(b) existing shading of water surfaces is preserved; and

(c) the above provisions are not applicable to the removal of trees, limbs or branches that are dead, diseased or pose safety hazards.

5.32 Topographic Alterations/Grading and Filing

Refer to Minnesota Wetland Conservation Act of 1991 and all subsequent amendments.

A. Connections to public waters. Excavations where the intended purpose is connection to a public water, such as boat slips, canals, lagoons and harbors, are regulated by MSA Chapter 105 and the St. Louis County Ordinance.

5.4 Placement and Design of Roads, Driveways, and Parking Areas.

5.41 Public and private roads and parking areas must be designed to take advantage of natural vegetation and topography to achieve maximum screening from view from the water. Documentation must be provided by a qualified individual that all roads and parking areas are designed and constructed to minimize and control erosion to the Vermilion River consistent with the field office technical guides of the local soil and water conservation district or other applicable technical materials. Parking areas should be located outside of shore impact zone.

5.42 Roads, driveways and parking areas must meet structure setbacks and must not be placed within bluff and shore impact zones when other reasonable and feasible placement alternatives exist. If no alternatives exist, they may be placed within these areas and must be designed to minimize adverse impacts.

5.43 Public and private watercraft access ramps, approach roads and access-related parking areas may be placed within shore impact zones provided the vegetative screening and erosion control conditions of this subpart are met. For private and public facilities, the grading and filling provisions of Section 5.32 of this ordinance must be met.

5.5 Storm Water Management.

The following standards shall apply for storm water management:

5.51 General Standards:

A. Impervious lot coverage shall not exceed 25%.

B. Existing natural features that control storm water runoff shall remain unchanged as much as possible.

C. When areas are to be disturbed, alterations shall be managed to minimize the area to be modified, control runoff velocity and erosion, and reduce and/or delay runoff volume. Sediments shall be retained on site and the disturbed area shall be stabilized and in completed condition in as short a period of time as possible.

D. When man-made materials and/or facilities are used to control runoff directly into surface waters, the Soil and Water Conservation District shall be informed and their requirements and concerns shall be addressed and followed.

E. Whenever a question arises concerning methods, management or engineering practices, the Soil and Water Conservation District's advice shall be followed.

5.6 Special Provisions for Commercial, Industrial, Public/Semipublic, Agricultural, Forestry and Extractive Uses and Mining of Metallic Minerals and Peat.

5.61 Standards for Commercial, Industrial, Public and Semipublic Uses.

A. River-oriented commercial uses and public, or semipublic uses with similar needs to have access to and use of public waters may be located on parcels or lots with frontage on public waters. Those uses with river-oriented needs must meet the following standards:

(1) in addition to meeting impervious coverage limits, setbacks, and other zoning standards in this ordinance, the uses must be designed to incorporate topographic and vegetative screening of parking areas and structures;

(2) uses that require shore-term watercraft mooring for patrons must centralize these facilities and design them to avoid obstructions of navigation and to be the minimum size necessary to meet the need; and

(3) uses that depend on patrons arriving by watercraft may use signs and lighting to convey needed information to the public, subject to the following general standards:

(a) no advertising signs or supporting facilities for signs may be placed in or upon public waters. Signs conveying information or safety messages may be placed in or on public waters by a public authority or under a permit issued by the county sheriff;

(b) signs may be placed, when necessary, within the shore impact zone if they are designed and sized to be the minimum necessary to convey needed information. They must only convey the location and name of the establishment and the general types of goods or services available. The signs must not contain other detailed information such as product brands and prices, must not be located higher than ten feet above the ground, and must not exceed 32 square feet in size. If illuminated by artificial lights, the lights must be shielded or directed to prevent illumination out across the river ways or onto adjoining properties;

(c) other outside lighting may be located within the shore impact zone or over public waters if it is used primarily to illuminate potential safety hazards and is shielded or otherwise directed to prevent direct illumination out across the river ways or onto adjoining properties. This does not preclude use of navigational lights.

B. Uses without river-oriented needs must be located on lots or parcels without public waters frontage, or, if located on lots or parcels with public waters frontage, must either be set back double the

normal ordinary high water level setback or be substantially screened from view from the water by vegetation or topography, to blend with surrounding conditions.

5.62 Agriculture Use Standards.

A. General cultivation farming, grazing, nurseries, horticulture, truck farming, sod farming and wild crop harvesting are permitted uses if steep slopes and shore and bluff impact zones are maintained in permanent vegetation or operated under an approved conservation plan (Resource Management Systems) consistent with the field office technical guides of the local soil and water conservation districts or the Natural Resources Conservation Service, as provided by a qualified individual or agency. The shore impact zone for parcels with permitted agricultural land uses is equal to a line parallel to and 50 feet from the ordinary high water level.

B. No animal feedlots within 500 feet of the river corridor.

5.63 Forest Management Standards.

The harvesting of timber and associated reforestation must be conducted consistent with the provisions of the Minnesota Nonpoint Source Pollution Assessment-Forestry and the provisions of Water Quality in Forest Management "Best Management Practices in Minnesota".

Congress passed the Shipstead-Nolan Act in July, 1930. (Chapter 881, Statutes at Large, Vol. 46, pg. 1020). The state Legislature followed suit by passing MSA 92.45.

The federal law prohibits logging on land adjacent to lakes and rivers that can be used for canoeing or boating within the area defined by the law. This act applies to such waters within this boundary and to the parts of these same waters that extend beyond the boundary. Also included are Burntside and Vermilion Lakes. Only diseased, insect infested, dying or dead timber may be cut within 200 feet of the shoreline; and if aesthetic quality is affected, no logging is permitted within 400 feet of the high water mark on federal lands.

MSA 92.45 extends the restrictions of the Shipstead-Nolan Act to all state lands and county lands within the same geographic area. In addition, this state law mandates the protection of sustained timber yields, watersheds, wildlife habitat, shorelines and scenic features while harvesting timber on state lands adjacent to meandered lakes and other public waters and watercourses.

5.64 Extractive Use Standards.

A. Site Development and Restoration Plan. An extractive use site development and restoration plan must be developed, approved, and followed over the course of operation of the site. The plan must address dust, noise, possible pollutant discharges, hours and duration of operation, and anticipated

vegetation and topographic alterations. It must also identify actions to be taken during operation to mitigate adverse environmental impacts, particularly erosion, and must clearly explain how the site will be rehabilitated after extractive activities end.

B. Setbacks for Processing Machinery. Setbacks shall be the same as that for structures in Forested areas, with double setbacks in remote areas.

5.65 Mining of Metallic Minerals and Peat.

Mining of metallic minerals and peat, as defined in Minnesota Statutes, sections 93.44 to 93.51, shall be a permitted use provided the provisions of Minnesota Statutes, sections 93.44 to 93.51, are satisfied.

5.7 Conditional Uses

Conditional uses allowable within the Vermilion River(s) land use districts shall be subject to the review and approval procedures, and criteria and conditions for review of conditional uses established community-wide. The following additional evaluation criteria and conditions apply within shoreland areas:

5.71 Evaluation criteria. A thorough evaluation of the waterbody and the topographic, vegetation and soils conditions on the site must be made to ensure:

(1) the prevention of soil erosion or other possible pollution of public waters, both during and after construction;
(2) the visibility of structures and other facilities as viewed from public waters is limited;

(3) the site is adequate for water supply and on-site sewage treatment; and

(4) the types, uses and numbers of watercraft that the project will generate are compatible in relation to the suitability of public waters to safely accommodate these watercraft.

5.72 Conditions attached to conditional use permits. St. Louis County, with advice from the VRMB, shall attach such conditions to the issuance of the conditional use permits as it deems necessary to fulfill the purposes of this ordinance. Such conditions may include, but are not limited to, the following:

(1) increased setbacks from the ordinary high water level;

(2) limitations on the natural vegetation to be removed or the requirement that additional vegetation be planted; and

(3) special provisions for the location, design, and use of structures, sewage treatment systems, watercraft launching and docking areas, and vehicle parking areas.

5.8 Water Supply and Sewage Treatment

5.81 Water Supply. Any public or private supply of water for domestic purposes must meet or exceed standards for water quality of the Minnesota Department of Health.

5.82 Sewage System Setbacks and Standards

A. On-site System Limiting Factors: The St. Louis County Individual Sewage Treatment Construction standards relating to lot area, setback and width standards shall also be complied with. These standards may result in lot area widths larger than required by the specific dimensional standards listed in the above table. In those situations where the sanitary system limiting factors result in a larger lot size, those standards shall be the applicable standards.

B. Structure Setback from Sanitary System: All occupied structures including bunkhouses shall be set back 20 feet from an on-site sewage treatment system drainfield and all accessory structures shall have a minimum setback of 10 feet from the system drainfield.

C. Sanitary Checkoff: All land use permits issued within the shoreland area and parcels within the 500 ft. river corridor area shall have the sanitary system reviewed to determine if the system is failing or if the proposed land use permit would adversely impact the existing sewage system or the expansion area for the sewage system. No land use permit will be issued if there is an adverse impact or the system is failing unless the sanitary system is upgraded according to the implementation of this procedure including provisions for not undertaking the checkoff when a system has been recently approved or reviewed by the County.

D. Nonconforming sewage treatment systems shall be regulated and upgraded in accordance with section 6.3 of this Ordinance.

SECTION 6.0
NONCONFORMITIES

All legally established nonconformities as of the date of this ordinance may continue, but they will be managed according to applicable state statutes and other county regulations of this community for the subjects of alterations and additions, repair after damage, discontinuance of use, and intensification of use; except that the following standards will also apply in shoreland areas:

These provisions sited here are those contained in the State Shoreland Ordinance and for ease of administration of nonconformities, lots of record will be subject to the provisions of St. Louis County Shoreland Ordinance, as amended.

6.1 Construction on nonconforming lots of record.

A. Lots of record in the office of the county recorder on the date of enactment of local shoreland controls that do not meet the requirements of Section 5.1 of this ordinance may be allowed as building sites without variances from lot size requirements provided the use is permitted in the zoning district, the lot has been in separate ownership from abutting lands at all times since it became substandard, was created compliant with official controls in effect at the time, and sewage treatment and setback requirements of this ordinance are met.

B. A variance from setback requirements must be obtained before any use, sewage treatment system or building permit is issued for a lot. In evaluating the variance, the board of adjustment shall consider sewage treatment and water supply capabilities or constraints of the lot and shall deny the variance if adequate facilities cannot be provided.

C. If, in a group of two or more contiguous lots under the same ownership, any individual lot does not meet the requirements of Section 5.1 of this ordinance the lot must not be considered as a separate parcel of land for the purposes of sale or development. The lot must be combined with the one or more contiguous lots so they equal one or more parcels of land, each meeting the requirements of Section 5.1 of this ordinance as much as possible.

6.2 Additions/expansions to nonconforming structures.

A. All additions or expansions to the outside dimensions of an existing nonconforming structure must meet the setback, height and other requirements of Section 5.0 of this ordinance. Any deviation from these requirements must be authorized by a variance pursuant to Section 3.3.

B. Decks attached:

(1) Deck Additions Principal Structures Toward Shoreline: Deck additions extending toward the water body may be allowed to nonconforming primary structures with the following performance standards. An evaluation of the property must reveal that no reasonable location for a deck exists except towards the shore.

(a) the deck shall have neither side wall, nor roof, but may contain railings for safety purposes.

(b) the deck shall not exceed 12 feet in depth.

(c) the closest point of the deck from the nearest ordinary high water level shall be no closer than 50% of the required setback of the zone.

(2) Deck Additions to Side of Principal Structures Not Extending Closer to Shoreline: Deck additions to the side of nonconforming principal structures, (not encroaching toward the water body), shall be permitted as per the following:

(a) shall be limited to 12 feet in width if located within the Shore Impact Zone.

(b) shall be limited to 16 feet in width if located outside the Shore Impact Zone.

(c) the design standards in 5.1 shall be followed.

(3) Deck Additions to the Rear of the Principal Structure: Deck additions to the rear of nonconforming principal structures shall be permitted as per the following:

(a) limited to 16 feet in width if located within the Shore Impact Zone.

(b) no restrictions as to width outside the Shore Impact Zone, but may not be enclosed or have a roof.

6.3 Nonconforming sewage treatment systems.

A. A sewage treatment system not meeting the requirements of Section 5.8 of this ordinance must be upgraded, at a minimum, at any time a permit or variance of any type is required for any improvement on, or use of, the property. For the purposes of this provision, a sewage treatment system shall not be considered nonconforming if the only deficiency is the sewage treatment system's improper setback from the ordinary high water level.

B. The governing body of St. Louis County Board of Commissioners has by formal resolution notified the commissioner of its program to identify nonconforming sewage treatment systems. St. Louis County will require upgrading or replacement of any nonconforming system identified by this program within a reasonable period of time. Sewage systems installed according to all applicable local shoreland management standards adopted under Minnesota Statutes, section 103.F, in effect at the time of installation may be considered as conforming unless they are determined to be failing, except that systems using cesspools, leaching pits, seepage pits, or other deep disposal methods, or systems with less soil treatment area separation above groundwater than required by the Minnesota Pollution Control Agency's Chapter 7080 for design of on-site sewage treatment systems, shall be considered nonconforming.

7.11 Land suitability. Each lot created through subdivision, including planned unit developments authorized under Section 8.0 of this ordinance, must be suitable in its natural state for the proposed use with minimal alteration. Suitability analysis by the local unit of government shall consider susceptibility to flooding, existence of wetlands, soil and rock formations with severe limitations for development, severe erosion potential, steep topography, inadequate water supply or sewage treatment capabilities, near-shore aquatic conditions unsuitable for water-based recreation, important fish and wildlife habitat, presence of significant historic sites, or any other feature of the natural land likely to be harmful to the health, safety or welfare of future residents of the proposed subdivision or of the community.

7.12 Consistency with other controls. Subdivisions must conform to all official controls of this community. A subdivision will not be approved where a later variance from one or more standards in official controls would be needed to use the lots for their intended purpose. In areas not served by publicly owned sewer and water systems, a subdivision will not be approved unless domestic water supply is available and a sewage treatment system consistent with Sections 5.2 and 5.8 can be provided for every lot. Each lot shall meet the minimum lot size and dimensional requirements of Section 5.1, including at least a minimum contiguous lawn area, that is free of limiting factors sufficient for the construction of two standard soil treatment systems. Lots that would require use of holding tanks must not be approved.

7.13 Information requirements. Sufficient information must be submitted by the applicant for the community to make a determination of land suitability. The information shall include at least the following:

(1) topographic contours at ten-foot intervals or less from United States Geological Survey maps or more accurate sources, showing limiting site characteristics;

(2) the surface water features required in Minnesota Statutes, section 505.02, subdivision 1, to be shown on plats, obtained from United States Geological Survey quadrangle topographic maps or more accurate sources.

(3) adequate soils information to determine suitability for building and on-site sewage treatment capabilities for every lot from the most current existing sources or from field investigations such as soil borings, percolation tests or other methods;

(4) information regarding adequacy of domestic water supply; extent of anticipated vegetation and topographic alterations; near-shore aquatic conditions, including depths, types of bottom sediments, and aquatic vegetation; and proposed methods for controlling storm water runoff and erosion, both during and after construction activities;

(5) location of 100-year flood plain areas and floodway districts from existing adopted maps or data; and

(6) a line or contour representing the ordinary high water level, the "toe" and the "top" of bluffs, and the minimum building setback distances from the top of the bluff and the lake or stream.

7.14 Dedications. When a land or easement dedication is a condition of subdivision approval, the approval must provide easements over natural drainage or ponding areas for management of storm water and significant wetlands.

7.15 Platting. All subdivisions that create five or more lots or parcels that are 2-1/2 acres or less in size shall be processed as a plat in accordance with Minnesota Statutes, Chapter 505. No permit for construction of buildings or sewage treatment systems shall be issued for lots created after these official controls were enacted unless the lot was approved as part of a formal subdivision.

7.16 Controlled Access or Recreational Lots. Lots intended as controlled accesses to public waters or for recreational use areas for use by nonriparian lots within a subdivision must meet or exceed the sizing criteria in Section 5.13 of this ordinance.

SECTION 8.0
PLANNED UNIT DEVELOPMENT (PUD'S)

8.1 Types of PUD's Permissible

Planned unit developments (PUD's) are allowed for new projects on undeveloped land, redevelopment of previously built sites or conversions of existing buildings and land. The land use districts in which they are an allowable use are identified in the land use district descriptions in Section 4.2 of this ordinance and the official VRMB land use district map.

8.2 Processing of PUD's

Residential planned unit developments have a minimum of five living units. Planned unit developments must be processed as a conditional use, except that an expansion to an existing commercial PUD involving 6 or less new dwelling units or sites since the date this ordinance was adopted is permissible as a permitted use provided the total project density does not exceed the allowable densities calculated in the project density evaluation procedures in Section 8.5.

8.3 Application for a PUD

The applicant for a PUD must submit the following documents prior to final action being taken on the application request:

8.31 A site plan and/or plat for the project showing locations of property boundaries, surface water features, existing and proposed structures and other facilities, land alterations, sewage treatment and water supply systems (where public systems will not be provided), and topographic contours at ten-foot intervals or less. When a PUD is a combined commercial and residential development, the site plan and/or plat must indicate and distinguish which buildings and portions of the project are residential, commercial, or a combination of the two.

8.32 A property owners association agreement (for residential PUD's) with mandatory membership, and all in accordance with the requirements of Section 8.6 of this ordinance.

8.33 Deed restrictions, covenants, permanent easements or other instruments that: 1) properly address future vegetative and topographic alterations, construction of additional buildings, beaching of watercraft and construction of commercial buildings in residential PUD's; and 2) ensure the long-term preservation and maintenance of open space in accordance with the criteria and analysis specified in Section 8.6 of this ordinance.

8.34 When necessary, a master plan/drawing describing the project and the floor plan for all commercial structures to be occupied.

8.35 Those additional documents as requested by St. Louis County that are necessary to explain how the PUD will be designed and will function.

8.4 Site Evaluation

Site Evaluation uses County Design Standards as stated in the St. Louis County Shoreland Ordiannce.

Proposed expansions or new planned unit developments will be evaluated using the following procedures and standards to determine the suitable area for the dwelling unit/dwelling site density evaluation in Section 8.5.

8.41 The project parcel must be divided into tiers by locating one or more lines approximately parallel to a line that identifies the ordinary high water level at the following intervals, proceeding landward:

Riparian Tier Dimension - Vermilion River

Unsewered	Sewered
400 feet	320 feet

8.42 The suitable area within each tier is next calculated by excluding from the tier area all wetlands, bluffs or land below the ordinary high water level or floodplain of the rivers. This suitable area and the proposed project are then subjected to either the residential or commercial planned unit development density evaluation steps to arrive at an allowable number of dwelling units or sites.

8.5 Residential and Commercial PUD Density Evaluation*

The procedures for determining the "base" density of a PUD and density increase multipliers are as follows. Allowable densities may be transferred from any tier to any other tier further from the water body, but must not be transferred to any other tier closer.

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8.51 Residential PUD "Base" Density Evaluation:

A. The suitable area within each tier is divided by the single residential lot size standard for the Vermilion River and their tributaries, the single residential lot width standard times the tier depth, unless St. Louis County has specified an alternative minimum lot size for rivers which shall then be used to yield a base density of dwelling units or sites for each tier. Proposed locations and numbers of dwelling units or sites for the residential planned unit developments are then compared with the tier, density and suitability analysis herein and the design criteria in Section 8.6.

8.52 Commercial PUD "Base" Density Evaluation:

A. Determine the average inside living area size of dwelling units or sites within each tier, including both existing and proposed units and sites. Computation of inside living area sizes need not include decks, patios, stoops, steps, garages or porches and basements, unless they are habitable space.

*No increased density is allowed

B. Select the appropriate floor area ratio from the following table:

Commercial Planned Unit Development Floor Area Ratios*

*Average unit floor area (sq.ft.)	Vermilion River Segments	
	Forested	Remote
200	.020	.010
300	.024	.012
400	.028	.014
500	.032	.016
600	.038	.019
700	.042	.021
800	.046	.023
900	.050	.025
1,000	.054	.027
1,100	.058	.029
1,200	.064	.032
1,300	.068	.034
1,400	.072	.036
1,500	.075	.038

*For average unit floor areas less than shown, use the floor area ratios listed for 200 square feet. For areas greater than shown, use the ratios listed for 1,500 square feet. For recreational camping areas, use the ratios listed at 400 square feet. Manufactured home sites in recreational camping areas shall use a ratio equal to the size of the manufactured home, or if unknown, the ratio listed for 1,000 square feet.

C. Multiply the suitable area within each tier by the floor area ratio to yield total floor area for each tier allowed to be used for dwelling units or sites.

D. Divide the total floor area by tier computed in Item C. above by the average inside living area size determined in Item A. above. This yields a base number of dwelling units and sites for each tier.

E. Proposed locations and numbers of dwelling units or sites for the commercial planned unit development are then compared with the tier, density and suitability analysis herein and the design criteria in Section 8.6.

8.6 Maintenance and Design Criteria

8.61 Maintenance and Administration Requirements.

A. Before final approval of a planned unit development, adequate provisions must be developed for preservation and maintenance in perpetuity of open spaces and for the continued existence and functioning of the development.

B. Open space preservation. Deed restrictions, covenants, permanent easements, public dedication and acceptance, or other equally effective and permanent means must be provided to ensure long-term preservation and maintenance of open space. The instruments must include all of the following protections:

(1) commercial uses prohibited (for residential PUD's);

(2) vegetation and topographic alterations other than routine maintenance prohibited;

(3) construction of additional buildings or storage of vehicles and other materials prohibited; and

(4) uncontrolled beaching of watercraft prohibited.

C. Development organization and functioning. All residential planned unit developments must use an owners association with the following features:

(1) membership must be mandatory for each dwelling unit or site purchaser and any successive purchasers;

(2) each member must pay a pro rate share of the association's expenses and unpaid assessments can become liens on units or sites;

(3) assessments must be adjustable to accommodate changing conditions; and

(4) the association must be responsible for insurance, taxes and maintenance of all commonly owned property and facilities.

8.62 Open Space Requirements. Planned unit developments must contain open space meeting all of the following criteria:

(1) at least 60 percent of the total project area must be preserved as open space;

(2) dwelling units or sites, road rights-of-way, or land covered by road surfaces, parking areas, or structures, except water-oriented accessory structures or facilities, are developed areas and shall not be included in the computation of minimum open space;

(3) open space must include areas with physical characteristics unsuitable for development in their natural state and areas containing significant historic sites or unplatted cemeteries;

(4) open space may include outdoor recreational facilities for use by owners of dwelling units or sites, by guests staying in commercial dwelling units or sites, and by the general public;

(5) open space may include subsurface sewage treatment systems if the use of the space is restricted to avoid adverse impacts on the system;

(6) open space must not include commercial facilities or uses but may contain water-oriented accessory structures or facilities;

(7) the appearance of open space areas, including topography, vegetation and allowable uses, must be preserved by use of restrictive deed covenants, permanent easements, public dedication and acceptance, or other equally effective and permanent means; and

(8) the shore impact zone, based on normal structure setbacks, must be included as open space. For residential PUD's, at least 60 percent of the shore impact zone area of existing developments or at least 80 percent of the shore impact zone area of new developments must be preserved in its natural or existing state. For commercial PUD's, at least 60 percent of the shore impact zone must be preserved in its natural state.

8.63 Erosion Control and Stormwater Management.

Erosion control and stormwater management plans must be developed and the PUD must:

(1) be designed, and the construction managed, to minimize the likelihood of serious erosion occurring either during or after construction. This must be accomplished by limiting the amount and length of time of bare ground exposure. Temporary ground covers, sediment entrapment facilities, vegetated buffer strips, or other appropriate techniques must be used to minimize erosion impacts on surface water features. Erosion control plans approved by a soil and water conservation district may be required if project size and site physical characteristics warrant; and

(2) be designed and constructed to effectively manage reasonably expected quantities and qualities of stormwater runoff. Impervious surface coverage within any tier must not exceed 25 percent of the tier area, except that for commercial PUD's 35 percent impervious surface coverage may be

allowed in the first tier of general development lakes with an approved stormwater management plan and consistency with Section 5.3.

8.64 Centralization and Design of Facilities.

Centralization and design of facilities and structures must be done according to the following standards:

(1) planned unit developments must be connected to publicly owned water supply and sewer systems, if available. On-site water supply and sewage treatment systems must be centralized and designed and installed to meet or exceed applicable standards or rules of the Minnesota Department of Health and Sections 5.2 and 5.8 of this ordinance. On-site sewage treatment systems must be located on the most suitable areas of the development, and sufficient lawn area free of limiting factors must be provided for a replacement soil treatment system for each sewage system;

(2) dwelling units or sites must be clustered into one or more groups and located on suitable areas of the development. They must be designed and located to meet or exceed the following dimensional standards for the relevant shoreland classification: setback from the ordinary high water level, elevation above the surface water features, and maximum height.

(3) shore recreation facilities, including but not limited to swimming areas, docks and watercraft mooring areas and launching ramps, must be centralized and located in areas suitable for them. Evaluation of suitability must include consideration of land slope, water depth, vegetation, soils, depth to groundwater and bedrock, or other relevant factors. The number of spaces provided for continuous beaching, mooring or docking of watercraft must not exceed one for each allowable dwelling unit or site in the first tier (notwithstanding existing mooring sites in an existing commercially used harbor). Launching ramp facilities, including a small dock for loading and unloading equipment, may be provided for use by occupants of dwelling units or sites located in other tiers;

(4) structures, parking areas, and other facilities must be treated to reduce visibility as viewed from public waters and adjacent shorelands by vegetation, topography, increased setbacks, color or other means acceptable to the local unit of government, to blend with surrounding conditions. Vegetative and topographic screening must be preserved, if existing, or may be required to be provided;

(5) accessory structures and facilities, except water oriented accessory structures, must meet the required principal structure setback and must be centralized; and

(6) water-oriented accessory structures and facilities may be allowed if they meet or exceed design standards contained in Section 5.2 of this ordinance and are centralized.

8.7 Conversions

Local governments may allow existing resorts or other land uses and facilities to be converted to residential planned unit developments if all of the following standards are met:

8.71 Proposed conversions must be initially evaluated using the same procedures for residential planned unit developments involving all new construction. Inconsistencies between existing features of the development and these standards must be identified.

8.72 Deficiencies involving water supply and sewage treatment, structure color, impervious coverage, open space and shore recreation facilities must be corrected as part of the conversion or as specified in the conditional use permit.

8.73 Shore and bluff impact zone deficiencies must be evaluated and reasonable improvements made as part of the conversion. These improvements must include, where applicable, the following:

(1) removal of extraneous buildings, docks or other facilities that no longer need to be located in shore or bluff impact zones;

(2) remedial measures to correct erosion sites and improve vegetative cover and screening of buildings and other facilities as viewed from the water; and

(3) if existing dwelling units are located in shore or bluff impact zones, conditions are attached to approvals of conversions that preclude exterior expansions in any dimension or substantial alterations. The conditions must also provide for future relocation of dwelling units, where feasible, to other locations, meeting all setback and elevation requirements when they are rebuilt or replaced.

8.74 Existing dwelling unit or dwelling site densities that exceed standards in Section 8.5 may be allowed to continue but must not be allowed to be increased, either at the time of conversion or in the future. Efforts must be made during the conversion to limit impacts of high densities by requiring seasonal use, improving vegetative screening, centralizing shore recreation facilities, installing new sewage treatment systems, or other means.

8.75 Conversions do not materially adversely affect the implementation of the VRMB management plan.

(Picture)
Vermilion River. St. Louis County, MN. Circa 1940

VI. VERMILION RIVER RECREATION GUIDE

Flowing from its source on Wolf Bay of Lake Vermilion, the Vermilion River flows approximately 42 miles through Kabetogama State Forest within Superior National Forest. Its waters gush through a series of rapids which offer a wilderness adventure to both novice and expert canoeist alike. The river is an established canoe route by the Minnesota Department of Natural Resources (MDNR). The rapids range from class I (easy rapids with small waves and few obstuctions) to class IV (cannot be attempted without great risk to life). Boating and canoeing are a real favorite pastime and offer a unique opportunity to travel and enjoy the outstanding beauty of the region.

The beauty of the river begins at Vermilion Dam with a portage on the right of 50 rods. There is a USGS gauge on the left, 200 feet below the dam. At river mile 39 from Vermilion Lake there is water access only.

Shivaly Falls has three steep boulder-bed pitches and is in canoe class III. There is a portage on the left (west side) of 80 rods. Shivaly access is a carry-in access with a small parking lot and is maintained by the state.

Liftover Falls, at river mile 36.7, has a sheer four foot drop into a quiet pool. Portage on the right (east side) is eight rods. This area is a class II.

At river mile 36.5 is Everette Rapids, a class I-II boulder-bed pitch. Portage is at the right at 90 rods. At Squaw Rapids, class I-II, the river enters the chain of Lakes, seven miles of wide still water. There is an undeveloped campsite at river mile 36.2 with a fire ring.

Two Mile Creek is at river mile 35; it has a back-in boat access with parking on private land with owner's consent. A few miles down the river are two campsites with fire rings.

Eight Mile Creek has a back-in access at County Road 422 bridge which is maintained by the county. MDNR campsite is on the right.

Table Rock Falls, located at river mile 29.4, has a 20 foot cascade with vertical ledges. This is a class IV-VI route. The river then runs into a steep narrow canyon and tumbles through continuous rapids for the next three quarters of a mile which is in class III-IV on the canoe route.

The C.C. camp at river mile 28.4 is maintained by the state and has a carry-in access.

County Road 24 bridge at Buyck has a carry-in access on the right, above the bridge, and is state maintained.

Holmer Creek access, at Gold Mine Road bridge over the creek, has a back-down boat launch. This access is also state maintained.

(Picture)
Gorge below first falls on the Vermilion River. Circa 1898

A long, rocky island marks the beginning of the 60-rod portage around the left side of High Falls. The rapids at the downstream end of the island leads to the falls, a 25 foot high, narrow, twisting flume. High Falls, also called Vermilion Falls or Upper Gorge, is a water class VI. The United States Forest Service maintains an area on the left with picnic tables, fire grates, privies and an observation railing along the falls. There is a carry-down access off Forest Road 491.

The rapids make the Vermilion a unique and beautiful river. Some of the rapids, such as Belguim Freds Rapids and DeCaigny Rapids, are in a class I boulder-bed pitch which makes this a great experience for the beginning canoeist. Belguim Freds Rapids portage is on the left at 40 rods, with DeCaigny Rapids portage on the right at 60 rods. Pelican Rapids joins the Vermilion and you can paddle one half mile up the Pelican River to see rapids and waterfalls. Chipmunk Falls is in a class II boulder-bed pitch with a portage on the left side of 60 rods.

Snowshoe Narrows has pine covered cliffs and hills nearly 100 feet high above the river. There is a U.S.F.S. campsite on the right. The bluffs recede and rice beds line the next several miles of river.

The Chute is a twisting, 10 foot drop over a ledge with large boulders. The current is powerful and crashes into an undercut cliff on the left and an undercut rock on the right near the tail of the rapids. These rapids are in class III-V. At river mile 2.1 there is a U.S.F.S. campsite.

A portage on the left at river mile 1.3 is 240 rods. This is the beginning of the "Gorge". The "Gorge" is perhaps the most unusual and beautiful of the Vermilion Rapids. The river bends sharply to the left, tumbles over two steep ledges and enters a narrow canyon with sheer 50 foot walls. This area is in class III-V. Quick rescue in the canyon is nearly impossible.

Bourassa's Post is a historic site with a rest area. The area is named Rene' Bourassa, after a Frenchman who built a trading post near the mouth of the river in 1736.

The Vermilion River widens as it joins Crane Lake. There is a water access on the southwestern shore of the lake maintained by the state and U.S. Forest Service.

The river is also a favorite "fishing hole" for the local folks and vacationers that visit the area. Walleye, Smallmouth Bass, Northern Pike and Rock Bass are some of the fish enjoyed by fishermen, young and old.

Waterfowl hunting as well as wild rice gathering, camping and viewing the scenery and wildlife are also favorite pastimes.

The river offers an abundance of wildlife, plants and birds. Whitetail deer are common and moose, black bear, timber wolves, beavers, bald eagles, otters and osprey are occasionally sighted. The wildlife, plants and birds are an enjoyable sight for the boaters, hikers and all who frequent the area.

The river has magnificent stretches of beautiful scenery. Rock formations and narrow gorges offer a view of the geological history. Bluffs occasionally rise more than 100 feet above the river. In the fall the colors are breathtaking. A dense forest of birch and aspen interspersed with dark green conifers is truly a spectacular sight.

Many resorts are available to provide for the needs of the visitors to the area. There is also a golf course for the enjoyment of the "locals" and others that visit the area.

The river offers a variety of wilderness adventure experiences whether boating, canoeing, hiking or just sight-seeing.

(Picture)
Kayaking on the Vermilion River

VII. MANAGEMENT RECOMMENDATIONS

The Vermilion River Plan is built around the concept of biodiversity by incorporating multiple use practices which will not only protect the environment but will allow utilization of the resources by the public.

By recommending Best Management Practices (BMP's), where renewable elements are involved, the plan ensures that resources are sustainable for future generations.

We also recognize there is a place for old growth and a need to preserve species. With sound management practices and by recommending the use of BMP's to intelligently harvest the natural resource, we maintain a responsible stewardship to the administration of our forests.

Special Areas:

1. The Vermilion River has outstanding and special areas including such areas as Vermilion Gorge, Vermilion Falls, and Table Rock Falls. We recommend these areas, which are located on public lands, be maintained in their natural state for recreational use by the public.

MANAGEMENT RECOMMENDATIONS	PARTY RESPONSIBLE	P R O J E C T E D BUDGET
FISHERIES & WILDLIFE		
		on-going

1. Promote management of existing vegetation and establishment of native vegetation where needed in the river corridor. The permanent vegetation can be trees, brushlands or grass lands. All of these types provide water quality protection as well as providing for a diversity of fish and wildlife species.	County, U.S. Forest Service, Citizens MDNR	
2. Make an effort to identify additional unique or critical fish habitat areas, especially fish spawning and nursery areas in the river and tributaries within the corridor.	MDNR - Fisheries	on-going
3. Maintain public lands along the river for public access and recreational use (including fishing, trapping and hunting), plus shoreland stabilization and wildlife habitat.	County, State, Forest Service	on-going
4. We recommend fishing, trapping and hunting regulations remain under the MDNR.	MDNR	on-going
5. Control development along the river to minimize negative impacts on water quality and fish habitat.	Citizens, Private companies, Government entities	on-going
6. Encourage retention of snag trees.	Citizens, Government entities	on-going
7. Support Best Management Practices (BMP's) that are already in place for water quality.	Citizens, Private companies, State, County, Forest Service	on-going BMP's obtained from DNR
8. Enhance waterfowl and wildlife habitat by maintaining existing wild rice beds.	MDNR Wildlife, U.S. Forest Service	on-going
9. Assess waterfowl hunting pressure and harvest rates on the river. The goal being to enhance waterfowl hunting opportunities while protecting the waterfowl resource.	MDNR Wildlife	on-going

PUBLIC LAND MANAGEMENT

1. There should be no new cabin site leases on public lands. Existing leases should continue and be maintained.	Government entities	on-going
2. County leases in corridor should be put in transfer state and if so they must meet setback standards.	County	on-going
3. Maintain and/or improve existing river access for public use and recreation.	DNR, County, Forest Service	on-going

RECREATIONAL USE

1. Construct bike or walking trails where it is feasible.	MDNR-Trails, County, Forest Service	$3000 to $5000 per mile
2. Improve and/or maintain recreation facilities.	County, State, Forest Service	on-going
3. Have signs identifying recreational facilities and boat access.	MDNR-Trails & Waterways	wood signs $20.00 each plus labor
4. Maintain Campsites.	Citizens, County, State, U.S. Forest Service	on-going
5. Close nonconforming campsites and provide additional campsites as the use demands and where conditions permit.	State, County, Forest Service	on-going as needed
6. Motorized use such as motorboats, snowmobiles, ATV's and other motorized means of conveyance should be allowed to continue.	Government entities	on-going
7. Safety Portages should be maintained for use by boats, canoes, snowmobiles and motorized means of conveyance.	Citizens, State, County, Forest Service	on-going

WATER QUALITY

1. Routine monitoring by the MPCA should be conducted.	MPCA	on-going
2. Achieve and maintain high water quality.	Citizens, State, County, U.S. Forest Service	on-going
3. Test current water quality and establish base line data.	MPCA	on-going
4. Design a monitoring plan to establish data base of water quality showing seasonal trends over a period of time and at various points along the river.	MPCA	on-going
5. Educate and inform the public of issues affecting and practices needed to maintain high water quality.	Citizens and Government entities	Educational brochures $.50 to $2.00 each depending on material
6. Encourage use of Best Management Practices for water quality.	Citizens, Private companies, Government entities	on-going
7. Encourage filter strips along the banks to stop river bank erosion.	Citizens, State, County, Forest Service	on-going

PRIVATE/PUBLIC SECTOR COOPERATION

1. Cooperation between the public and private sector for the best possible use of the river for now and the future.	Citizens, Government entities	on-going
2. Private owners must prevent pollution from septic systems and drainage systems.	Citizens	Information of septic systems can be obtained from St. Louis County, Health Dept.
3. The committee recommends to the Vermilion River Board that the chairman of the steering committee be informed of any issues that arise concerning the Vermilion River.	County, Citizen	on-going
4. The committee recommends that an annual meeting be held with the steering committee and the river board.	County and Citizens	on-going
5. Gravel pits within the corridor require a standard permit. Rules that apply on private lands should be followed on public lands.	Landowners, Government entities	on-going
HISTORICAL/CULTURAL SITE PROTECTION USE		
1. Educate the public about significant historical sites, both native and white settlers.	County Extension, Historical Society, Schools (pamphlets)	Pamphlets $.50 to $2.00 each depending on material needed
2. Significant archeological and historical sites (those meeting National Register criteria) should be preserved and protected.	Citizens, County, State, Federal	on-going
3. Land trades/exchanges for historic and archeologically significant resources found in private lands should be encouraed or present	Citizens, County, State, Federal	Compensation would be based on site and

owners will receive compensation for land lost for protection of a significant site.		land owner agreement
NAVIGATION AND WATERCRAFT SAFETY		
1. All boats and canoes must follow Department of Natural Resources laws on safety, including laws on necessary equipment.	Citizens	on-going
2. Place signs along the river for boaters to identify locations of recreational facilities, hazards and other informational signs.	State. County, Federal	wood signs $20.00 each plus labor
AGRICULTURE/SOILS		
1. Implement Best Management Practices for water quality	Citizens, Government entities	on-going
2. Encourage protection of wetlands on private and public lands.	Citizens, Private companies, County, State, Federal	on-going
3. The use of pesticides, weed control sprays and fertilizers should be conducted by application instruction.	Citizens, Private companies, County, State, Federal	on-going
4. Encourage planting of shrubs, trees and vegetation along river banks and other areas subject to erosion.	Citizens, County State, Federal	seedling bundles $25.00 (pine, spruce, cedar) SWCD
FORESTRY MANAGEMENT		
1. On all lands within the river corridor we recommend that naturally-occurring long-lived species in appropriate sites be encouraged.	Private landowners, County, State, Federal	on-going

2. All forestry practices within the 500 foot corridor on public and private lands should be conducted under Water Quality Best Management Practices as written by: Chippewa National Forest U.S. Forest Service, Superior National Forest U.S. Forest Service, MN Assoc. of Counties Land Commissioner, MDNR Division of Forestry, Minnesota Forest Industries, Minnesota Pollution Control Agency, Minnesota Timber Producers Association and the University of Minnesota. New publications of BMP's should be viewed and considered by government agencies.	Private landowners, County, State, Federal	

BMP's can be obtained at DNR offices

For Visual Quality: MDNR-Division of Forestry
200 Airport Rd
Grand Rapids, MN 55744

For Water Quality: Wetland and Water Quality
BMP Coordinator
MDNR-Division of Forestry
Box 44-500 La Fayette Rd.
St. Paul, MN 55155

3. Recommend adherence to visual quality BMP's as written by: Congress of Minnesota Resorts, MN Assoc. of Land Commissioners, MDNR, Minnesota Forest Industries, MN Hotel & Lodging Associations, MN Resort Association, Minnesota Restaurant Association, Minnesota Timber Producers Association, Minnesota Tree Farm System and the U.S. Forest Service.	Private land owners, County, State, Federal	on-going
4. Recommend a Level One (more sensitive) to county committee for identifying the visual quality sensitivity level for local traffic corridors and recreation areas.	County	

5. Private landowners should utilize Best Management Practices and consider obtaining professional services and advice provided by public and private agencies.	Private land owners	on-going

ENDANGERED SPECIES PROTECTION

1. Adhere to the Endangered Species Act.	Citizens, County, State Federal	on-going

VOLUNTEER ACTIVITY POSSIBILITIES FOR CORRIDOR IMPROVEMENTS

1. Institute the "Adopt A River" volunteer river clean up program for the Vermilion River.	Citizens	on-going
2. Inform the public of the work done by the river committee and let the public know where they may be able to help in improving the river corridor.	Citizens, Government entities	on-going
3. Recreational users should be encouraged to maintain the Vermilion river corridor in the best condition possible.	Citizens	on-going

VIII. RIVER BOUNDARIES

RIVER SHORELAND BOUNDARY DELINEATION CRITERIA

The criteria used to draw river management boundaries varies greatly, but there are some common (widely accepted) characteristics.

To wit, virtually all boundary drawing centers on two (2) factors: hydrology and topography. That is, protection of water quality by inclusion of important tributary segments or sensitive main stem shoreline areas is the norm. Regarding topography, those areas which are highly visible from the river (often referred to as "line-of-sight") are typically used as a primary criterion for boundary delineation. The rationale being that maintaining the essential character of the shoreline is a key objective of nearly every river plan; and that if the visual appearance of the shoreline is destroyed, then much of its essential character is lost.

In addition to these central principles for guiding boundary delineation, other criteria are also commonly used. These are:

1. Inclusion of unique natural, scientific and biological features

2. Inclusion of important cultural, historic or recreational sites/features.

3. Inclusion of environmentally sensitive areas such as wetlands or fragile topographic features.

4. Inclusion of important public land areas.

In addition to these considerations, when a boundary is delineated it needs to be readily identifiable as to what's in and what's out (land area). Since these boundaries are not surveyed, it is particularly important that local zoning officers, other local officials and landowners be able to identify "on the ground" the boundary area which is depicted on a zoning ordinance map. For this reason, two other criteria, for ease of administration, are used:

1. Follow existing property lines (e.g. 40 acre tract lines, section lines).

2. Follow existing alignments or other man-made features which are readily identifiable.

The second type of boundary delineation is the "across-the-board" application of a specified distance landward from the ordinary high water mark.

This is much less involved in boundary delineation because it is a matter only of selecting an appropriate, agreed distance to be used, regardless of other considerations.

(Picture)
Second falls along the Vermilion River. Circa 1898

Some examples of the application of specified corridor boundaries are:

MDNR Shoreland Management Regulations:
1,000 ft. for all lakes
300 ft. for all rivers/streams

Mississippi Headwaters: 1,000 ft. corridor

Big Fork River Management Plan: 500 ft.corridor

Rainy/Rapid Plan: 500 ft. corridor
(Koochiching County)

Rainy: 300 ft. corridor
(Lake of the Woods County)

Rapid: 500 ft. corridor
(Lake of the Woods County)

In addition, there are also locally administered zoning standards which are applied under the Flood Plain Zoning Act. The area within which these standards are applied is the engineer-estimated 100-year flood plain. Obviously, the flood plain delineation varies according to the topography.

BOUNDARY DELINEATION

At the August 17, 1994 meeting of the Vermilion River Steering Committee, the committee adopted shoreland district boundaries for the Vermilion River. At a March 20, 1995 meeting of the Vermilion River Management Board, the Board adopted the Vermilion River Steering Committee recommended shoreland boundary districts. The river shoreland boundaries which were duly adopted are:

River Segment	Shoreland District
Vermilion River (St. Louis County)	500 ft. (from OHWM)

IX. RIVER MAPS

(Maps of the Vermilion River, St. Louis County on eight (8) separate plates.)

X. APPENDICES

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ZONING CHARTS AND DESCRIPTIONS

ST. LOUIS COUNTY:

The following list establishes zoning districts that are currently in effect along the shores of the Vermilion River in St. Louis County. All districts along the river are subject to W-3 classification: General Development Lakes and Streams.

SMU-4 Remote river segments are primarily located in roadless, forested, sparsely-populated areas of the northeastern part of the state. Common land uses include multiple-use forestry, some recreation facilities, and occasional seasonal or year-round residential. Low intensity recreational uses of these river segments and adjacent lands are common. This class has limited potential for additional development and recreational use due to land suitability and road access constraints.

SMU-5 Forested river segments are located in forested, sparsely to moderately-populated areas with some roads in the north-central part of the state. Predominant land uses include residential, and, within commuting distances of several cities, some year-round residential. Low-intensity recreational uses of these rivers adjacent lands are common. This class has substantial potential for additional development and recreational use.

VERMILION RIVER
MINIMUM DIMENSIONAL STANDARDS

The following chart denotes the current minimum standards for lot size, lot width, building setbacks and other requirements for each zoning classification/district for the shoreland along the Vermilion River in St. Louis County.

DIMENSIONAL STANDARDS:

Description	Zoning Districts			
	SMU-4		SMU-5	
Lot size (acres)	4.5		2.5	
Building setback	100 ft.		150 ft.*	
Lot width at building line	400 ft.		200 ft.	
Lot width at water line (O.H.W.M.)	400 ft.		200 ft.	
Sewage system	150 ft.		100 ft.	
Maximum residential structure height	35 ft.		35 ft.	

* 150 ft. (65% lot of record)

USES WITHIN ZONING DISTRICTS

1. The purpose of regulating uses within the zoning district is to maintain the existing environmental quality of the Vermilion River and its shoreland and to prohibit new uses which are incompatible with the purpose of this ordinance and the Vermilion River Management Plan.

2. Permitted, Conditional and Permitted Uses with Performance Standards

a) In the following uses:

P means permitted
C means conditional
PWPS means permitted uses with performance standards

Uses	Zoning District	
	SMU-4	SMU-5
Accessory structures larger than 800 sq. ft.	PWPS	PWPS
Accessory uses	P	P
Airport	C	C
Aquaculture, native species only	C	C
Borrow pits	C	C
Group homes	C	C
Home business	PWPS	PWPS
Home occupation	P	P
Livestock	C	C
Mineral exploration and evaluation	C	C
Multiple, two and three family dwellings	C	C
Off-site signs not to exceed 32 sq.ft. per side	C	C
Planned unit developments	C	C
Public and semi-public, non commercial uses including trails, parks, beaches, waysides, etc.	P	P
Public facility renovation	C	C
Public/semi-public uses (other than P uses)	C	C
Residential density control and density transfer	PWPS	PWPS
Seasonal dwellings	P	P
Signs	PWPS	PWPS
Single family dwellings	P	P
Temporary wood processing	C	C
Two-family dwellings	PWPS	PWPS
Utility Facilities	C	C
Waterfront commercial	C	C
Water-orientated accessory uses	PWPS	PWPS

ZONING DISTRICTS
(by river segments)

Vermilion:

Mouth of Crane Lake upstream to Sec. 32, T 66 N, R 17 W approx. 23 miles	SMU-4

Sec. 5, T 65 N, R 17 W
Town of Portage to Eight Mile Creek
T 64 N, R 17 W
NW 1/4 of Sec. 2
Approx. 8 miles SMU-5

Junction of Eight Mile Creek
T 64 N, R 17 W to
T 63 N, R 17 W, SW 1/4 of Sec. 2
approx. 10 miles SMU-4

SENSITIVE PLANTS

Sensitive Plants:

White Baneberry	(Actaea pachypoda)
Adoxa	(Adoxa moxchatellina)
Holboell's Rock Cress	(Arabis holboellii var. retrofracta)
Large-leaved Sandwort	(Arenaria macrophylla)
Arnica	(Arnica lonchophylla)
Lance-leaf Grape-fern	(Botrychium lanceolatum var. angustisegmentum)
Globin Fern	(Botrychium mormo)
Pallid Grape-fern	(Botrychium pallidum)
Ternate Grape-fern	(Botrychium rugulosum)
Pond Reedgrass	(Calamagrostis lacustris)
Mt. Katahdin Sedge	(Carex katahdinensis)
Lichen	(Certraria oakesiana)
Spring Beauty	(Claytonia caroliniana)
Black Hawthorn	(Cratageous douglasii)
Ram's-head Ladyslipper	(Cryipedium arietinum)
Waterwort	(Elatine triandra)
Acrid Fleabano	(Erigeron acris var. asteroides)
Hudson Bay Eyebright	(Euphrasia hudsoniana)
Northern Comandra	(Geocaulon lividum)
Auricled Twayblade	(Listera auriculata)
American Shore-plantain	(Littorella americana)

Lichen	(Lobaria scrobiculata)
Chilean Sweet Cicely	(Osmorhiza chilensis)
Bunt-fruited Sweet Cicely	(Osmorhiza obtusa)
Crazyweed	(Oxytropis viscida)
Butterwort	(Pinguicula vulgaris)
Alpine Bistwort	(Polygonum viviparum)
Western Jacob's Ladder	(Polemonium occidentale var. lacustre)
Braun's Holly Fern	(Polystichum braunii)
Sheathed Pondweed	(Potamogeton vaginatus)
Lichen	(Pseudocyphellaria crocata)
Vasey Rush	(Juneus vaseyi)
Beak-rush	(Rhynchospora fusca)
Cloudberry	(Rubus chamaemorous)
Encrusted Saxifrage	(Saxifraga aizoon var. neogaea)
Nodding Saxifrage	(Saxifraga cernua var. latibracteata)
Clustered Bur Reed	(Sparganium glomeratum)
Awlwort	(Subularia acquatica)
Tofieldia	(Tofieldia pusilla)
New England Violet	(Viola novae-angliae)
Oregon Woodsia	(Woodsia oregana var. cathcartiana)
Rocky Mountain Woodsia	(Woodsia scopulina)
Yellow-eyed Grass	(Xyris montana)

Occupied and unoccupied habitat recognized as essential for listed or proposed species recovery, or to meet Forest Service objectives for sensitive species.

(picture)
Two Moose swimming Lake Vermilion at Tower, MN

ENDANGERED, THREATENED, AND SENSITIVE ANIMALS

Endangered, Threatened and Sensitive Animals:

Endangered:

Peregrine Falcon	(Falco peregrinus)
Piping Plover (extirpated)	(Charadrius melodus)

Threatened:

Gray Wolf	(Canis lupus)
Bald Eagle	(Haliaeetus leucocephalus)

Sensitive Animals:

Boreal Owl	(Aegolius funereus)
Red-tailed Hawk	(Buteo jamaicensis)
Pine Warbler	(Dendroica pinus)
Cougar	(Felis concolor shogeri)
Canada Lynx	(Felis lynx canadensis)
Northern Myotis	(Myotis septentionalis)
Three-toed Woodpecker	(Picoides tridactylus)
Eastern Bluebird	(Siala sialis)

PUBLIC PARTICIPATION

Vermilion River Meetings:

All meetings of the VRMB are open to the public.

Public Participation:

April 27, 1994	Portage Inn, Buyck	Nov. 2, 1994	Portage Fire Hall, Buyck
May 11, 1994	Portage Fire Hall, Buyck	Dec. 7, 1994	St. Joseph Church,Buyck
May 18, 1994	Vermilion Dam Lodge	Dec. 21, 1994	St. Joseph Church,Buyck
June 1, 1994	Crane Lake Fire Hall, Crane Lake	Jan. 4, 1995	St. Joseph Church,Buyck
		Jan. 18, 1995	St. Joseph Church,Buyck
July 20, 1994	V.R.T., Buyck	Feb. 1, 1995	St. Joseph Church,Buyck
Aug. 3, 1994	St. Joseph Church, Buyck	Feb. 15, 1995	St. Joseph Church,Buyck
Aug. 17, 1994	St. Joseph Church, Buyck	March 2, 1995	St. Joseph Church,Buyck
Sept. 7, 1994	St. Joseph Church, Buyck	March 15, 1995	St. Joseph Church,Buyck
Sept. 21, 1994	Portage Fire Hall, Buyck	April 5, 1995	St. Joseph Church,Buyck
Oct. 5, 1994	St. Joseph Church, Buyck	May 10, 1995	St. Joseph Church,Buyck
Oct. 19, 1994	St. Joseph Church, Buyck		

Public Informational Meeting	Public Informational Meeting - Draft Plan
Proposed work plan - Vermilion River	May 2, 1995 Cook High School Library
June 1, 1994 - Crane Lake Fire Hall	May 3, 1995 St. Joseph Church, Buyck

May 4, 1995 Crane Lake Fire Hall,Crane Lake

MDNR "Adopt a River"
"Best Management Practices for Forestry in Minnesota"
March 15, 1995

RESOLUTIONS

1. **Itasca County Snowmobile Alliance**
   Grand Rapids, Minnesota

Resolution 95-1
A Resolution Supporting the Vermilion River Local Management Plan

WHEREAS the Vermilion River has traditionally been a river which had logging and recreation as primary functions, and

WHEREAS local control and management should be a primary concern in the management of the Vermilion River, and

WHEREAS resource management and recreational opportunities which the Vermilion River offers should be delivered through local and public input and cost share funding to fully utilize the river and adjacent public lands, and

WHEREAS significant historic and cultural sites exist along the Vermilion River and should be protected, and

WHEREAS improving habitat for wildlife and fisheries along the Vermilion River should come about through the cooperative efforts of citizen volunteers, public agencies and the private sector,

NOW THEREFORE BE IT RESOLVED that the Vermilion River Local Management Plan be adopted as a guide for future management and development of the Vermilion River and its adjacent lands.

Itasca County Snowmobile Alliance

Clem Lehrer
Secretary

2. **CWCS**
   Conservationists With Common Sense
   Tower, Minnesota

Dear Commissioners:

Conservationists With Common Sense would like to take this opportunity to send along our support for the Vermilion River Management Plan engineered by local citizens.

The citizens committee plan is being supported by CWCS, because we are opposed to further regulation of recreation areas, and we promote Multiple-Use of Public, Federal and State lands and waters during all seasons of the year with a concern for proper use by all.

The reason we are supporting the Vermilion River Management Plan is two-fold. It shows that local governments and its citizens can do land use planning, and because of the fact that it is being done locally, it is more responsible to the needs and concerns of local people.

Sincerely,

Ralston "Duffy" Bauer
President

3. **Swampsiders Snowmobile Club**
   Bigfork, Minnesota

Resolution 95-03
A resolution Favoring Local Management of the Vermilion River and Adjacent Lands

WHEREAS the Vermilion River has traditionally been a river which had logging and recreation as primary functions, and

WHEREAS local control should be primary in the Vermilion River's management, and

WHEREAS resource management and the recreational opportunities the Vermilion River offers should be delivered through public and local cost share funding and input to fully utilize the river and adjacent public lands, and

WHEREAS significant historic and cultural sites do exist along the Vermilion River and should be protected, and

WHEREAS improving habitat for wildlife and fisheries along the Vermilion River should come about through the cooperative efforts of citizen volunteers, public agencies and the private sector,

NOW THEREFORE BE IT RESOLVED that the Vermilion River Management Plan be approved as a guide for future management and development of the river and its adjacent lands.

Swampsiders Snowmobile Club

Jim Cox
President